



ezRemote Manager 2.4.1
USER MANUAL



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Production note: This manual was entirely designed, written, edited, and illustrated on Neoware thin client appliances.

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CHAPTER 1

Introduction

Introduction to Neoware's ezRemote Manager™ software.

Overview

Complete remote management of Neoware thin client appliances

ezRemote Manager is a server-based application, providing sophisticated centralized administration capabilities for Neoware thin client appliances. With ezRemote Manager, you can:

- locate and view the specifications of thin client appliances on your network that are running Neoware software,
- select, group, and print lists of Neoware thin client appliances for easy management,
- centrally manage security on Neoware thin client appliances anywhere on your network,
- selectively push system software updates to Neoware thin client appliances running Microsoft® Windows® CE, Windows® NTe, Windows® XPe, or NeoLinux™,
- remotely create and modify server connections on Neoware thin client appliances running Windows CE, Windows NTe, Windows XPe or NeoLinux,
- copy or "clone" the connections, appliance properties, and security settings from one appliance to other appliances,

- configure pull-based ezUpdate automatic updates of software, properties, and connections for Neoware thin client appliances running Windows CE or NeoLinux,
- (with Neoware's ezAnywhere technology), remotely configure any appliance located anywhere on your network, or shadow users for instructions or helpdesk functions,
- view the progress of updates as they occur, and schedule your updates for the most convenient date and time, and
- add new software components, and remotely control appliance processes through the use of snap-ins, scripting, and commands.

Because Neoware's ezRemote Manager is an enterprise-class tool, able to manage thousands of appliances, it is critical that you test configurations carefully before "cloning" them to other appliances. Neoware recommends first configuring connections and properties at one appliance, and testing them carefully from that appliance — before cloning them to other appliances. To insure that customers have carefully tested their configuration, we also recommend setting these properties directly at the appliance, not from within ezRemote Manager.

ezRemote Manager distribution

ezRemote Manager is distributed as a download from the Neoware Web site, www.neoware.com.

Important! Installation and use of ezRemote Manager Enterprise Edition requires a software license key from Neoware. If you don't have a software license key, you can get one by calling 800-636-9273 in the U.S. or +1-610-277-8300 elsewhere.

Neoware also provides a Limited Edition of ezRemote Manager, which does not require a license key. It contains all of the features of the Enterprise Edition, but is limited to managing any five (5) appliances simultaneously.

Getting More Information

The Internet

You can find current and archival information about Neoware products, including the latest software updates, at:

<http://www.neoware.com>

In addition, this user manual and other Neoware documentation are available on the Neoware web site for reading or downloading.

Technical support

For technical support, call Neoware at +1.610.277.8300, or send an e-mail message to *support@neoware.com*.

CHAPTER 2

Installing ezRemote Manager

This chapter explains how to install Neoware ezRemote Manager on a server.

Installing ezRemote Manager

ezRemote Manager must be installed on a Windows-based server, running either Windows NT Server 4.0 or Windows 2000 Server. Either server can also be running Microsoft Terminal Services, Citrix MetaFrame, WinFrame, or CDS.

ezRemote Manager includes these key files: *ezRM.exe* (the application), *snmp.dll* (the SNMP directory), *mib.txt* (which contains the SNMP database), and *regmgr.dll* and *brapi.dll* (for use with connection updates). Put and get Windows NTe image directories used for Windows NTe and Windows XPe cloning are also installed. Additionally installed, is a directory used for the ezUpdate of Windows CE software. A setup wizard guides you through the installation process.

Installing ezRemote Manager

- 1 Start the Installation and Setup Wizard, using the installation distribution file you have downloaded (see “ezRemote Manager distribution” on page 8).

Note: You must be logged in as an administrator to properly install ezRemote Manager. If you are using an application server, use the Add/Remove Programs applet in Control Panel to install the program from the downloaded file.

- 2 When the WinZip Self-Extractor dialog appears, click on the Setup button.
- 3 At the Setup wizard Welcome screen, click Next.
- 4 When prompted, type in the software license key for ezRemote Manager, and then click Next.
Note: The license key must be typed exactly as provided.
- 5 In the Software License Agreement window, click "yes" to agree to the license agreement and continue with the installation. Otherwise, click "no" and you will exit the setup utility.
- 6 Type your name and company, and then click Next.
- 7 Select the installation location, and then click Next.
Note: The default folder is *C:/Program Files/Neoware/ezRM*.
- 8 To use a Program Folder name other than *Neoware*, type it, and then click Next.
Note: The name you type will appear in the Windows Start | Program menu.
- 9 Click Next again to start copying files.
- 10 When done, click Finish.
Important : After the installation is completed, restrict access to the installation directory to only those people who need to run ezRemote Manager. If you installed ezRemote Manager on a Windows application server, make sure the shortcuts on the Start menu are only installed for those users who need to run ezRemote Manager.

Uninstalling ezRemote Manager

When you decide to uninstall ezRemote Manager, you can do so by using the Add/Remove Programs applet located in Windows Control Panel (Start | Settings | Control Panel). Scroll down in the installed software menu and highlight "ezRemote Manager." Then click on the Add/Remove button and follow the directions in the dialog.

CHAPTER 3

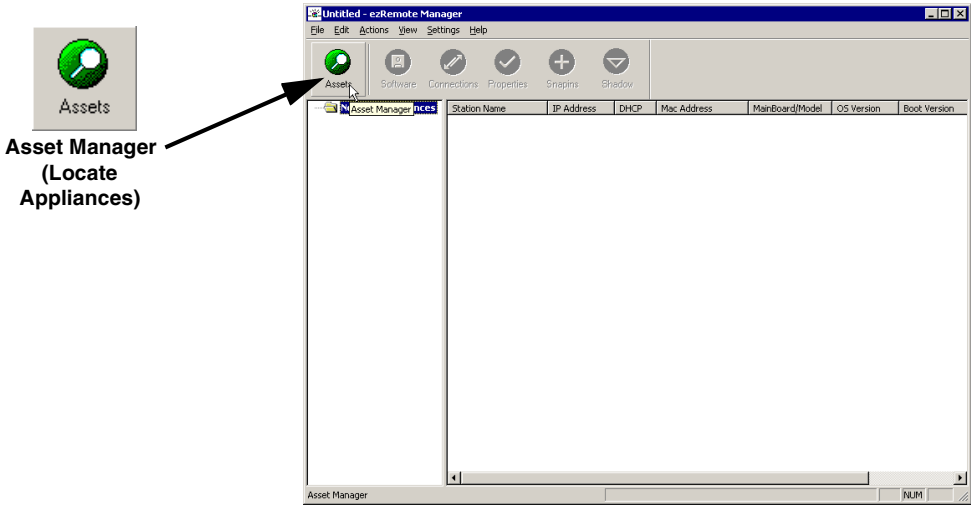
Asset Manager

This chapter explains how to use ezRemote Manager for locating, adding, viewing, and grouping lists of thin client appliances.

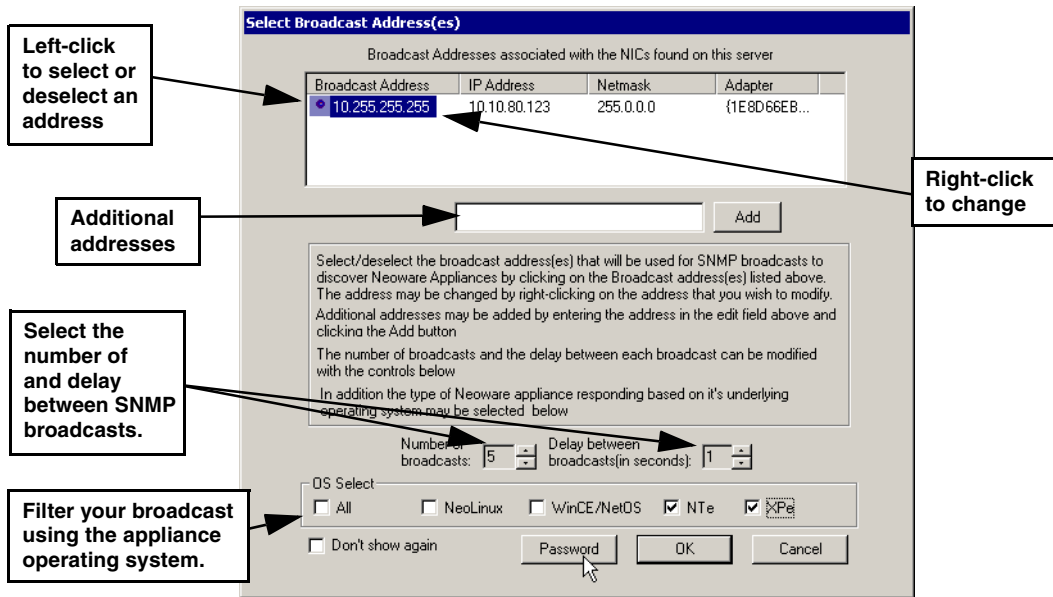
Locating appliances

Once ezRemote Manager is installed on a server, use it to locate and view information about your Neoware computing appliances.

- 1 Launch ezRemote Manager by selecting Neoware | ezRemote Manager in the Windows Start | Programs menu.
- 2 In the ezRemote Manager toolbar, click the Assets button. You can also select Assets from the Actions dropdown menu.



3 Select a broadcast IP address.



FYI

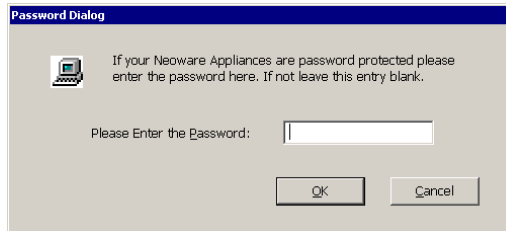
In order to locate clients on subnets through a router or switch, you may need to make changes in the router/switch configuration: SNMP broadcasts must be passed to the subnet. For more information, see "Appendix A: Broadcast SNMP and Router Configuration" on page 71.

ezRemote Manager locates Neoware appliances on your network by sending a Simple Network Management Protocol (SNMP) broadcast request from the server. You need to select a broadcast IP address (click on the select / deselect indicator to the left of the address).

Note: The default broadcast address for each network interface card (NIC) (as determined from your server's registry) is already selected when the dialog first appears.

- 4 To change a broadcast IP address, right-click and type a new one. Add additional broadcast IP addresses, by entering an additional IP address in the provided field, and then clicking on the Add button. For example, you might choose to add addresses for subnet routers.
- 5 Specify the number and delay between SNMP broadcasts. These settings depend on the size and configuration of you network. The default settings should work in all but the busiest of networks.

- 6 If you choose to, specify an operating system in the OS Filter, limiting your list to include only those appliances running that operating system.
- 7 If your Neoware appliances have been protected using an appliance configuration password, click on the Password button to enter the password.



The password you enter in this field, will be associated with all of the appliances discovered using this particular Locate operation. Click OK to return to the Broadcast Address dialog.

- 8 In the Broadcast Address Dialog, Click OK to locate and list the Neoware appliances on your network.

List view

List view is the listing of located and added Neoware appliances. It uses a familiar Explorer-type tree/list view, providing important information about each appliance:

Station Name	IP Address	DHCP	Mac Address	MainBoard/Model	OS Version	Boot Version
NEO-0000E0	10.10.101...		00:50:41:00:00:E0	WN3 NeoStatio...	NeoLinux 2...	BIOS
NEO-B802DC	10.10.50.144	Yes	00:E0:C5:B8:02:DC	WN3 NeoStatio...	NeoLinux 2...	BIOS
NEO-B8046B	10.10.50.79	Yes	00:e0:c5:b8:04:6b	WN3 Neostation	WinCE 3.00...	BIOS
NEO-B80492	10.10.50.47	Yes	00:E0:C5:B8:04:92	WN3 NeoStatio...	NeoLinux 2...	BIOS
NEO-C4C979	10.10.50.21	Yes	00:e0:c5:c4:c9:79	WN3 Neostation	WinCE 3.00...	BIOS
NEO-C4C9B3	10.10.50.134	Yes	00:E0:C5:C4:C9:B3	WN3 NeoStatio...	NeoLinux 2...	BIOS
NEO-C4CA70	10.10.50.72	Yes	00:E0:C5:C4:CA:70	WN3 NeoStatio...	NeoLinux 2...	BIOS
NEO-C4CBD1	10.10.50.26	Yes	00:E0:C5:C4:CB:D1	WN3 NeoStatio...	NeoLinux 2...	BIOS
NEO-C4CCC8	10.10.70.23		00:e0:c5:c4:cc:c8	WN3 Neostation	WinCE 3.00...	BIOS
NEO-C4CD44	10.10.50.149	Yes	00:e0:c5:c4:cd:44	WN3 Neostation	WinCE 3.00...	BIOS
NEO-C8F475	10.10.50.97	Yes	00:E0:C5:C8:F4:75	WN3 NeoStatio...	NeoLinux 2...	BIOS
NFO-C935R2	10.10.50.80	Yes	00:F0:C5:C9:35:R2	WN3 NeoStatio...	NeoLinux 2...	BIOS

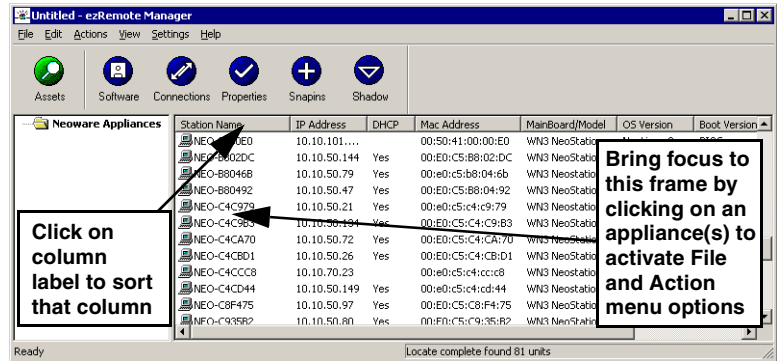
Locate complete found 81 units

List view appliance information

The appliance information in the list view includes:

- **Station Name** - The client's defined name ("Client name" for ICA sessions as defined in the unit's Terminal Properties | Administration tab, "hostname" in netOS systems). If no station name has been defined, the client's MAC address is displayed.
- **IP Address** - The IP address currently in use by the appliance.
- **DHCP** - If the IP address has been dynamically assigned by a DHCP (or BOOTP with NeoLinux clients) server, a "Yes" will appear in this column.
- **MAC Address** - The appliance's hardware Media Access Control address.
- **Mainboard Model** - A brief description of the appliance's hardware platform (NeoStation, @workStation, etc.).
- **OS Version** - A description of which appliance software version and release is currently running.
- **Boot Version** - Information about which version/release bootprom image version is installed in the appliance.
- **Flash** - If Neoware's Flash local storage daughterboard is installed, this column shows the amount of memory installed on the daughterboard.
- **Disk** - If a Flash disk (a DiskOnChip or DiskOnModule internal Flash device) is installed in the appliance (or PCMCIA or IDE hard disks in @workStations), this column displays the size of the local storage.
- **PLCC** - If a PLCC EEPROM programmable storage for the bootprom image is installed in the appliance (@workStations and NeoStations, only), the capacity is displayed in this column.

Sorting the list view To sort the list view by a category such as appliance name, IP address, etc., click the column label button for that category.

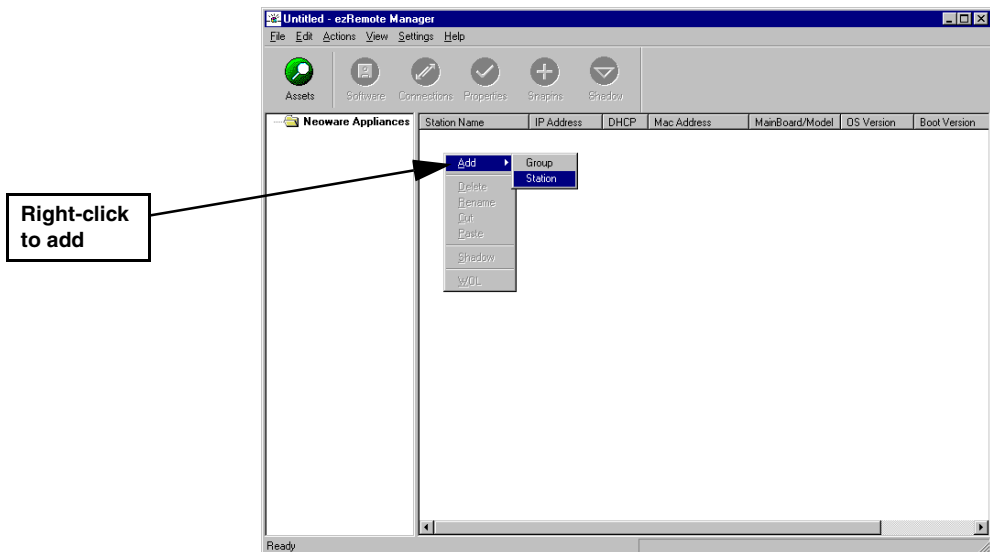


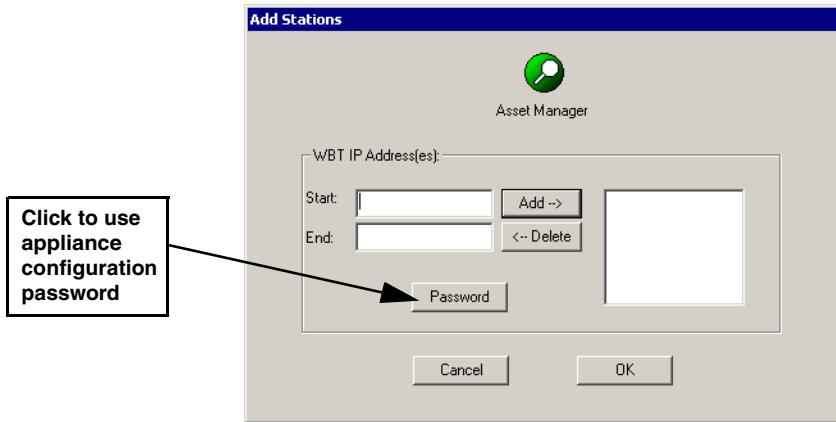
List View

Click on a column label a second time to reverse the sort order of the appliance.

Adding individual appliances to the list view

To add appliance IP addresses to the list view, right click anywhere in the right-hand pane, and then select Add | Station from the pop-up menu.





Tip

Adding appliances using their IP address does not use SNMP broadcast, so that even appliances located on remote sub-nets can be added to the list when SNMP broadcasts are blocked by routers.

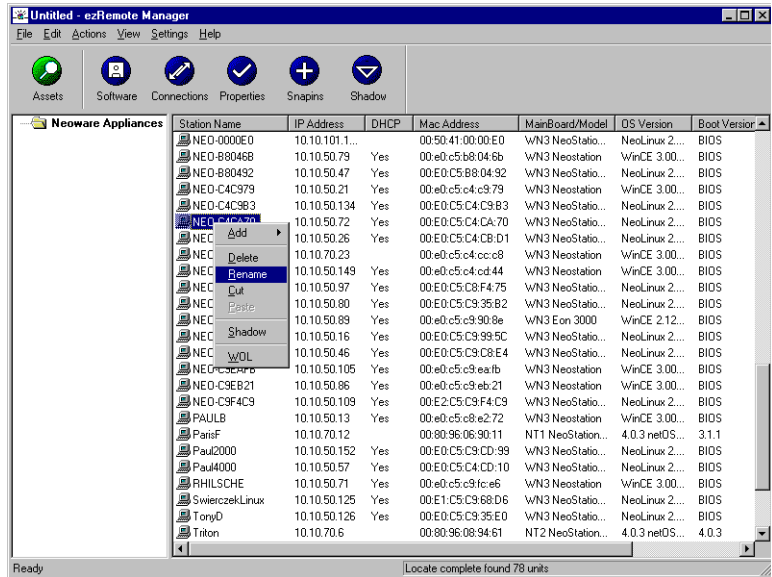
- 1 To specify a single IP address, enter the address in the "start" field and click the add button. To specify a range of IP addresses, enter the first IP address of the range in the "Start" field, and the last IP address of the range in the "End" field, and click Add.
- 2 To delete an address from the list, click on it and then click Delete.
- 3 If an appliance password needs to be associated with the appliance(s) that you are adding, click on the Password button to access the Password dialog. Follow the instruction for entering a password and then click OK to return to the Add Station dialog
- 4 When you have specified the IP addresses of the appliances you chose to discover (in the right window of the Add Station Dialog), Click OK to add them to your list view.

Renaming appliances

In the list view, you can directly change any appliance's name.

- 1 Right-click the name of an appliance in the list view, and then select Rename from the pop-up menu.
- 2 Type a new name for the appliance.

3 Press the Enter key to finish name entry.



Note: You can also change an appliance's name by selecting the appliance in the list view and clicking the Properties button. If the selected appliance is running Windows CE, select the Administration tab and change the name in the Client Name field. If the selected appliance is running NeoLinux, click on the Shadow button.

Grouping asset lists

To better manage Neoware appliances, you may choose to organize them in logical groups. Group appliances based on any criteria you desire. Using the sorting mechanism in the list view, and then clicking-and-dragging into defined groups, you can quickly create an easy-to-manage structure. For example, in a large network, you may decide to group appliances located on different subnets in different groups, or a separate group for each configuration of software.

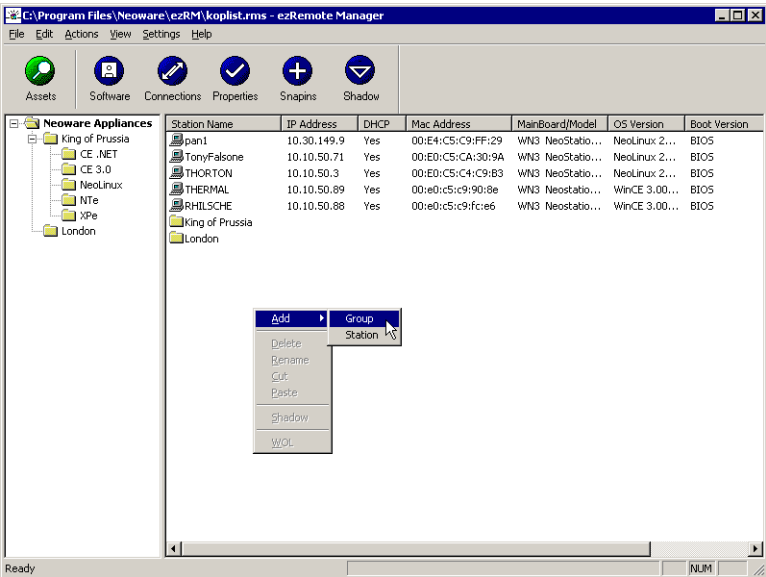
Note on saving lists: ezRemote Manager allows complex multi-

level grouping to provide you with flexibility. It is important to *save your list as you go*. When you use the File Save function, the complete asset management database is saved to disk, including groupings, IP addresses, station names, and OS versions.

ezRemote Manager also allows saving multiple database files. (For more information on using saved databases, see “Saving and retrieving asset lists” on page 22.) Saving multiple database files allows you to create different groupings of the same list of appliances.

Creating a new group

- 1 Right-click anywhere in the list view, and then select Add | Group from the pop-up menu.



- 2 Type a name for the new group folder.
- 3 Select the appliances that will belong to the new group.
You can select stations as you would in any Windows NT/2000 window.
- 4 Drag the selected appliances into the new group folder.

Note: It is also possible to drag and drop selected appliances to a folder contained in the left-hand pane.

Printing list views

Using the ezRemote Manager menus, you can easily print a list view:

- Use the organizational tree in the left-hand pane to select the group level you wish to print.
- Click into the right-hand pane.
- Select Print from the File Menu.
- The list displayed in the right-hand pane will print on the selected printer.
- To print the contents of a different group, select another group in the left-hand pane.

You can select printer settings using File | Print Setup.

Switching to the Task View

While in list view, you can switch to the Task View by selecting View | Task View from the menu bar. The task view will only be accessible if you have sessions in progress, waiting to begin, or completed sessions.

Adjusting the list view

- To hide the ezRemote Manager toolbar or status bar, deselect them in the View menu.
- To change the width of the ezRemote Manager left window, drag the bar between it and the main window. Or select Split from the View menu, and then drag the bar.

Saving and retrieving asset lists

Tip

Save asset lists so you can retrieve the database when you start ezRemote Manager to avoid having to rediscover and group your appliances again.

The asset listing displayed in ezRemote Manager can be saved to a database file (by default named with the extension *.rms*). The data that are saved to the database file include: groupings (group names and grouped appliances), IP addresses, station names, and operating system version information.

An essential strategy in using ezRemote Manager, is to save asset lists as files. That way you don't have to go through the discovery process every time you use ezRemote Manager. When you open ezRemote Manager for the next use, simply open a saved database file.

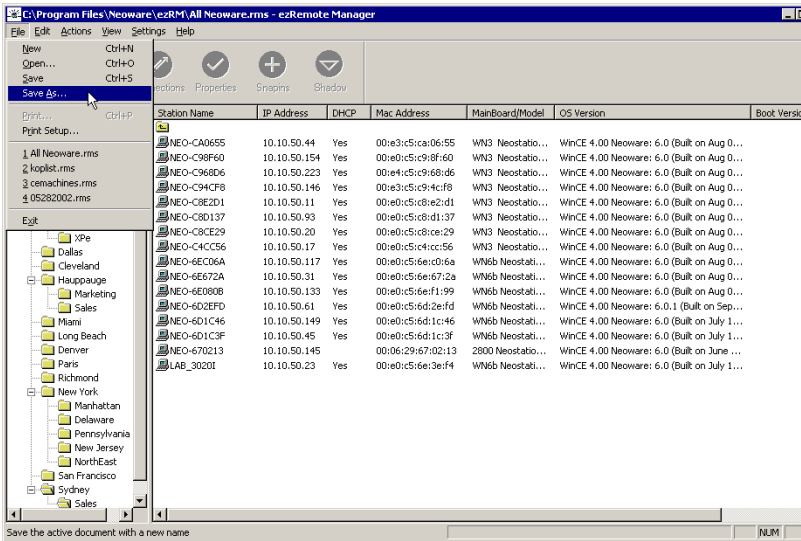
Another essential strategy is to save multiple versions of your asset list. By grouping your asset list in different ways, or even maintaining separate databases for different large groups of appliances, can make the task of managing the appliances much easier.

Saving a new asset list database

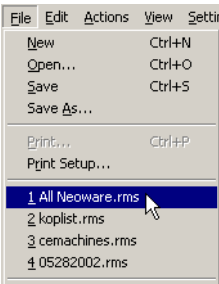
To save a list view for future use:

- 1 Select Save As from the File menu
- 2 In the Save As dialog, select a directory, type a database file

name, and then click Save.



Retrieving an asset list database

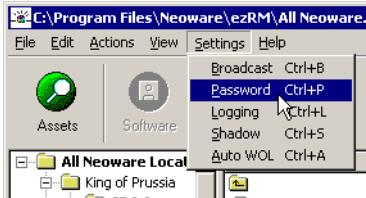


Recently saved database files are listed in the File menu. For a more complete list of database files, select File | Open.

Note: For security, appliance configuration passwords are not saved with the asset list database file. After retrieving a saved asset list database, its essential to enter your appliance configuration password prior to working with any secured appliance.

Entering appliance configuration password

Once you have retrieved a saved asset list database, enter a password to be used with all appliance tasks by:



- Select Password from the Settings menu (or simultaneously depress **Ctrl+P**).
- Enter the appliance configuration password in the Password Dialog, and then click OK.



CHAPTER 4

Updating Appliance Software

This chapter explains how to update the system software in Neoware appliances.

Software updates

Getting software updates

To properly use ezRemote Manager to update your computing appliance software, you must first install a Neoware software update package on the server that is running ezRemote Manager. These software update packages can be downloaded from the Neoware Web site at:

<http://www.neoware.com/downloads/>

Note: For instructions on installing software update packages after they have been downloaded, refer to the `readme.txt`, which can be found on the software update download web page.

Required version level

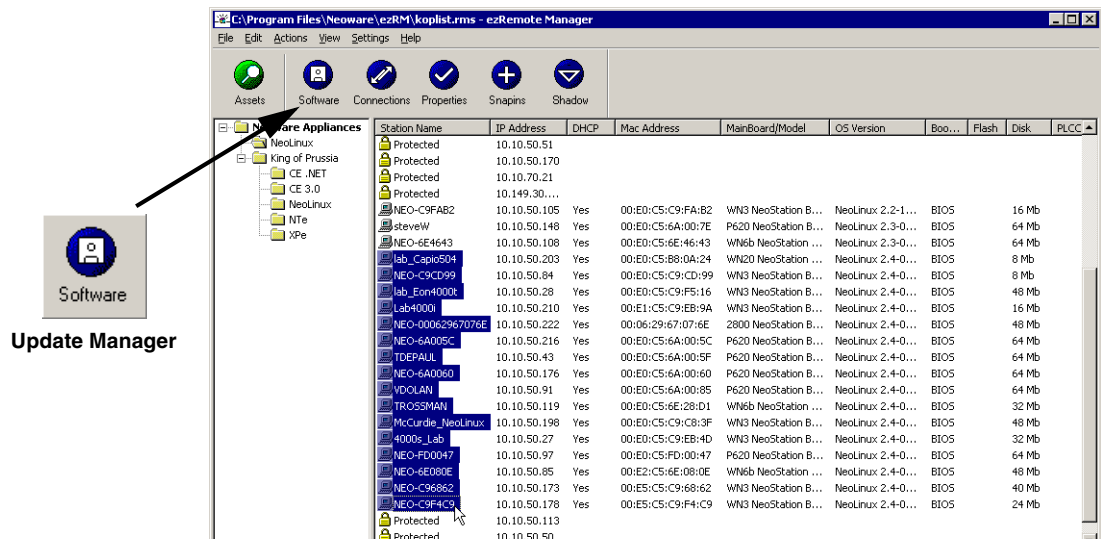
To use ezRemote Manager (2.0 or later) to update the software in Neoware computing appliances, your network must already be operating at Release 4.0.2 or later for netOS-based appliances; at Release 3.0 or later for Windows CE-based appliances; at Release 0.93 or later for NeoLinux based appliances; at Release 1.1 or later for Windows NTe based appliances, and Windows XPe- based appliances.

Important: ezRemote Manager allows you to update the netOS, Windows CE, NeoLinux, Windows XPe, or Windows NTe version

in a Neoware appliance, but prohibits you to change its software from one operating system to another.

Accessing the Update Manager

- 1 Select one or more appliances from the List View.
- 2 In the ezRemote Manager toolbar, click the Software button or select Software from the Actions menu bar item.

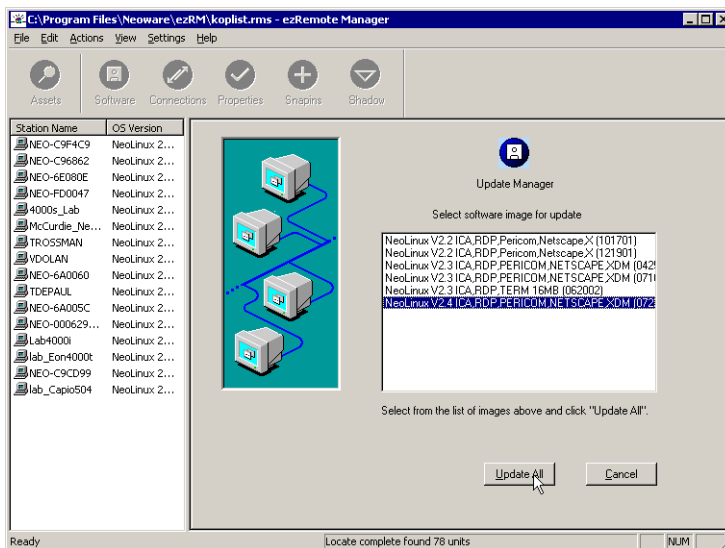


WARNING

Please do not attempt to create more than one simultaneous software update session on a single ezRemote Manager server. Doing so can bypass the network services throttle built-in to ezRemote Manager and result in incomplete software updates and corrupted Flash disks.

- 3 When the Update Manager opens, select either the NeoLinux, netOS, Windows CE, Windows XPe, or Windows NTe software update package to use to update your appliance(s). The update package will need to have been installed on the server on which

you are running ezRemote Manager.



Note: If the selected group of appliances contains more than one type of software, you will be prompted to choose which software to update. Once you have chosen the software to update, ezRemote Manager will display a list of the appliances running that software, and allow you to select the appropriate software update package for those appliances from the Available Versions list.

Note: If no software update packages appear on the Available Versions list, then you need to download and install one of Neoware's software update packages. The update packages can be accessed at <http://www.neoware.com/downloads/>.

- 4 After selecting the appropriate software update package, click the Update All button.
- 5 When the Confirm Session Start dialog appears, click the Properties button to set the session parameters (see "Setting Session Parameters" on page 61), OK to begin the session immediately, or Cancel.

Note: If you choose to delay the session in the Set Session Parameters dialog, clicking the OK button will add the delayed session to the Task View and delay the session, rather than beginning the session immediately.

XPe/NTe software cloning

ezRemote Manager lets you clone the full Flash disk image of Neoware thin client appliances, based on Windows XPe and Windows NTe. You can copy the image to other same-OS appliances running on your network, or store that image for backup. This image includes the operating system software, its configuration, all installed software applications (including custom software installations), and the configuration of that software.

Note: When you use a cloned image to update other Neoware Windows XPe/NTe appliances running on your network, the cloned image will completely replace the contents of the appliances' Flash disks.

Preparing the template or source appliance

Before using an XPe/NTe appliance as a template or source for cloning to other appliances (the target devices), it is critical that it be set up correctly:

Make all configuration changes —chosen to be cloned —to other appliances from the template appliance.

Note that the pre-update autologon behavior of the target appliances is preserved after being updated with the new cloned images. If you change the template, appliance's account names, or account passwords as part of the cloning operation, each target appliance will continue to attempt to use the original, pre-cloning autologon name and password, which may no longer be correct. In that occurrence, you can reconfigure the target machine's autologon status via the local GUI dialogs, or, you can use ezRemote Manager's ezAnywhere or Snap-in capabilities to modify the target machines.

Preparing the target appliances

No special preparation is required for target XPe/NTe appliances, where you intend to copy the cloned template software.

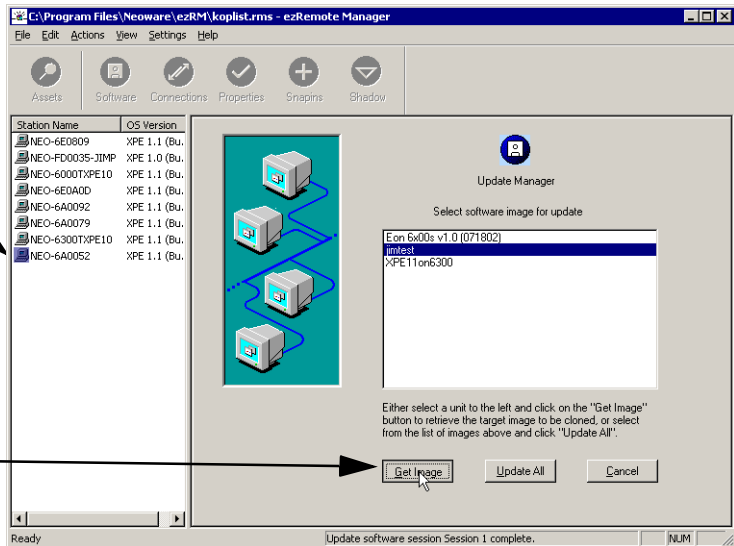
After the cloned template software update process is complete in the target appliances, those appliances' original autologon information is restored. The target XPe/NTe appliances can then be updated whether or not they are configured for automatic logon.

Start the cloning process

- 1 In the List View, select the preconfigured template XPe/NTe appliance to clone, and the target appliances to copy the image.
- 2 In the ezRemote Manager toolbar, click the Software button, or select Software from the Actions dropdown menu.
- 3 When the Update Manager opens, select the template Neoware XPe/NTe appliance in the left hand pane, and click the Get Image button.

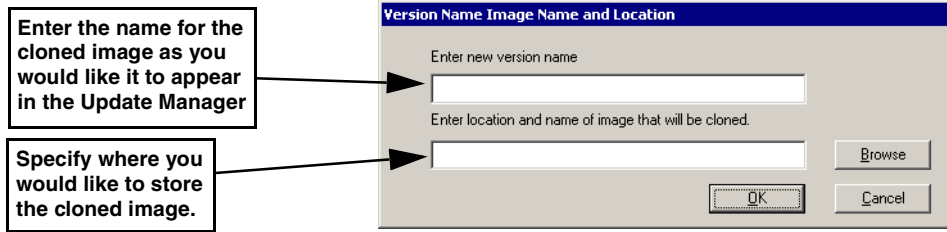
Select the Neoware Windows XPe/NTe appliance with the preconfigured software image.

Click the Get Image button to initiate the clone operation.



- 4 In the Version Name Image Name and Location dialog, type the name to be listed in the Update Manager. This name will represent the cloned storage image in the Enter new version name field. In the Enter location and name of image that will be cloned

field, type the full path and the name for the cloned image file.



You could alternatively, click the Browse button and use the standard Windows Save As dialog to specify a location and name for the cloned image file.

5 When finished, click OK.

The full storage cloned image will now appear in the Update Manager as a software update that you can apply to other Neoware Windows XPe appliances or Windows NTe appliances on your network.

Copying the cloned image to other XPe / NTe appliances

Once the cloned image is stored onto a drive on the ezRemote Manager server, it will be available to copy to one or more other appliances. The name of the cloned image you provided in step 4 of this procedure, will appear in the software Update Manager window. (See "Accessing the Update Manager" on page 26.)

Note: Images can be copied only to the same model appliance (with the identically-sized Flash disk) as the appliance from which the image was cloned.

CHAPTER 5

Connection Manager

This chapter explains how to use ezRemote Manager to manage server connections on your Neoware Appliances.

Connections in thin client appliances

What are “connections”?

Neoware computing appliances, focused to the task of thin client devices, are designed to access servers or applications through pre-defined connections. For example: Windows CE thin client appliances are primarily used through the Neoware Connection Manager with its list of pre-defined ICA, RDP, terminal emulation, or Web browser connections.

Among the operating systems supported by Neoware, Windows CE and NeoLinux use a connection manager to access network resources through pre-defined connections. *Connection cloning* is the mechanism by which ezRemote Manager can copy the pre-defined list of server connections from one thin client appliance to others (of the same model / software family).

Connection cloning supported models

This chapter focuses on cloning pre-defined connections from and to the following thin client appliances running Neoware software:

- Capio 504, 508, 608, 610, 616, and 620 models
- Capio I and II models running Neoware’s version of Windows CE software
- Eon 2000, 2100, 3000, 3100, 4000, and 4300 models

- NeoStation 3000 Series models
- NetVista N2200 and N2800 models running NeoLinux or Neoware's version of Windows CE software

Neoware's software (based on Windows XPe and Windows NTe) also may include customer-defined connections to servers and Web pages. Those connections (along with user configurations), are automatically duplicated, when the thin client appliance software is cloned. This chapter does not pertain to Windows XPe and Windows NTe thin client appliances. (For information about cloning Windows XPe/NTe appliances, see "XPe/NTe software cloning" on page 28.)

Cloned connection settings

The following are examples of settings copied and cloned in Connection Manager (when the source or template appliance has any of these connections defined):

- ICA connections: all configuration settings for each defined connection
- RDP connections: all configuration settings for each defined connection
- Pericom teemTALK CE terminal emulation connections (if installed on source or template appliance): all configuration settings for each defined connection
- PPP connections: all configuration settings for each defined PPP connection

What about other configuration settings?

Other appliance configuration settings, such as printer setup, screen resolution, and global ICA settings are cloned through Property Manager. (See "CHAPTER 6 Property Manager" on page 41.)

Why clone connections?

Save time configuring thin client appliances

Individual thin client appliances can be configured at the desktop when installed or whenever network resources change. This configuration usually includes initially defining to which servers, applications, and Web sites the thin client user may have access. While this configuration doesn't take much time for an individual appliance, initially configuring, or changing the connection configurations on more than a few thin client devices can consume a lot of administrator resources.

The alternative to individual client configuration is to configure a single appliance (the "template" appliance) with the server connections that will be used on other devices, and to then *clone* those connections and *copy* them to the other thin client appliances. ezRemote Manager makes cloning and copying connections both quick and easy.

Create "standard desktops" using ezUpdate server configuration files

The connection cloning mechanism, used by ezRemote Manager to *push* new connections to target thin client appliances can also be used to create configuration files that can be *pulled* by same-model thin client appliances from ezUpdate servers. When properly configured, ezUpdate servers will provide complete configuration to newly installed thin client appliances. (For more information about setting up an ezUpdate server: see "Appendix B: ezUpdate for Windows CE Appliances" on page 75, or see "Appendix C: ezUpdate for NeoLinux Appliances" on page 85.)

Setting up the template master appliance

Creating connections

Using ezRemote Manager to manage the server connections on your Neoware computing appliance is easy. The process begins at the appliance itself.

Caution

Because Neoware's ezRemote Manager is an enterprise-class tool that can manage thousands of appliances, it is important that you test configurations carefully before "cloning" them to other appliances.

To be sure that each connection is properly configured, it is important to create and test connections (using the thin client appliance) on the network that will be used. Therefore, Neoware recommends that you create and test the connections for multiple appliances on a thin client connected to the same network environment that all copied appliances will use. This can be accomplished using the ezAnywhere shadowing feature of ezRemote Manager (see "ezAnywhere Shadowing" on page 57).

By either using the actual thin client appliance as the template source device, or using ezAnywhere shadowing, create and test all of the connections you want to copy to other devices.

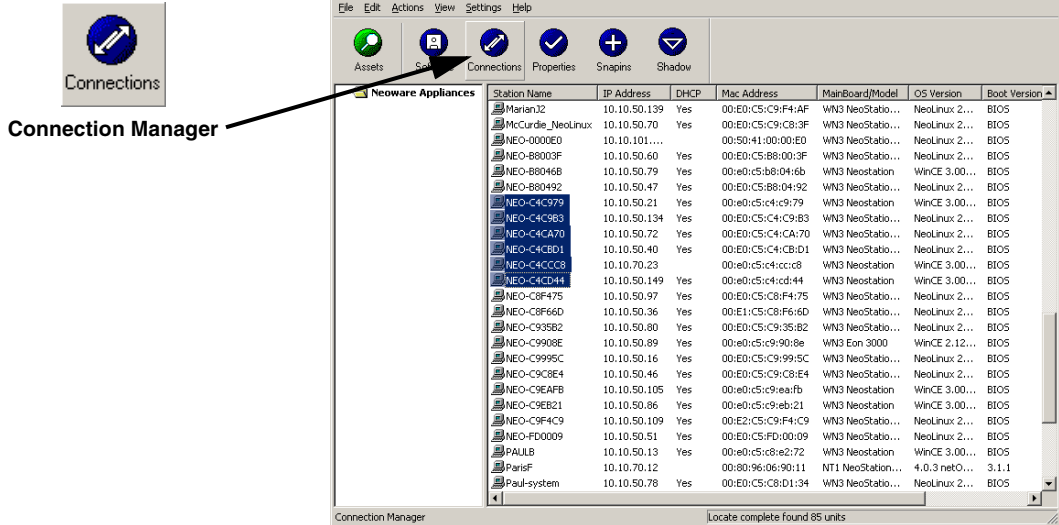
Cloning connections to other appliances

"Cloning" or copying connections from one thin client appliance directly to others

The next step involves the use of ezRemote Manager to "clone" or copy the connections created on one appliance, to the rest of the appliances or groups of appliances on your network. This ensures that your connections are properly configured, and will work on any appliance on your network.

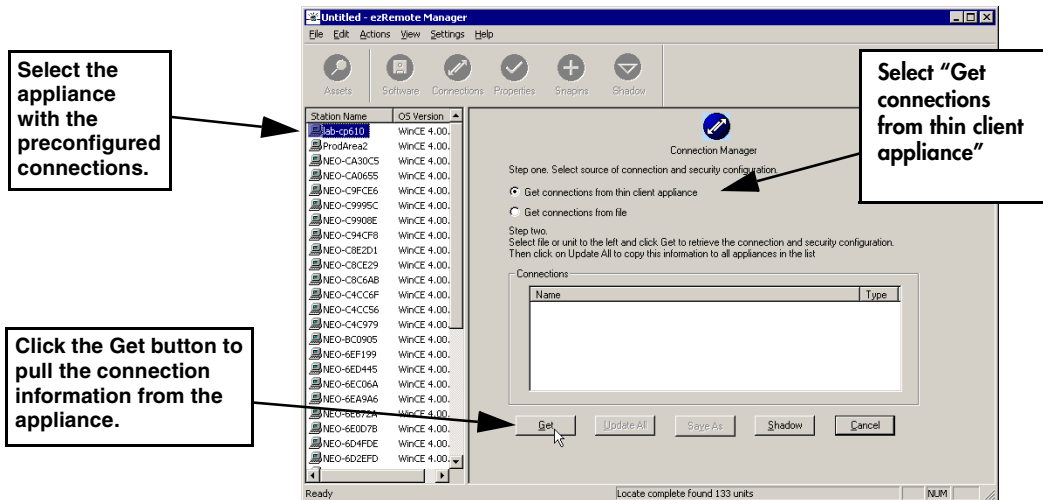
- 1 In the List View, select both the appliance with the preconfigured connections, and all of the appliances to be cloned to those con-

nections.



- 2 In the toolbar, click the Connections button, or select Connections from the Actions menu bar item.
Note: If the selected group of appliances are based on more than one kind of software you will be prompted to select which type of appliance to update by choosing the appropriate software platform. Once you have selected the software platform, ezRemote Manager will single out the appliances running that software and allow you to continue cloning or editing your connections.
- 3 When the Connection Manager appears, select the radio button entitled: Get connections from thin client appliance.
- 4 Select the appliance with the preconfigured connections from the

list of appliances on the left-hand side.



5 Click the Get button.

When ezRemote Manager finishes uploading the preconfigured connections and lists them in the Connection Manager window, the Update All button will become active.

6 To Copy or Clone the preconfigured connections to the other appliances listed on the left-hand side, click the Update All button.

7 When the Confirm Session Start dialog appears, click the Properties button to set the session parameters (see “Setting Session Parameters” on page 61), OK to begin the session immediately, or Cancel.

Note: If you choose to make the session delayed in the Set Session Parameters dialog, clicking the OK button will add the delayed session to the Task View instead of beginning the session immediately.

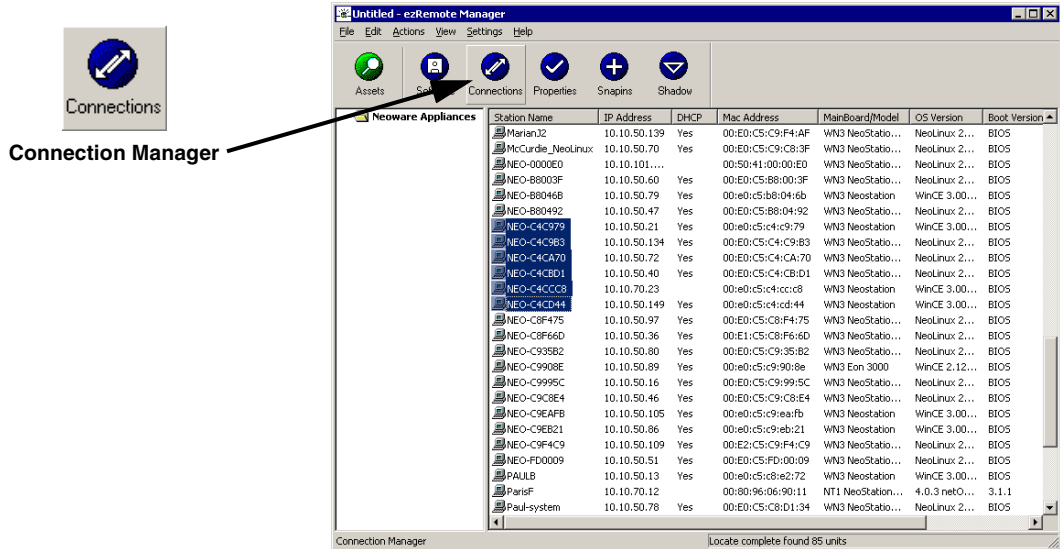
Loading connection configurations from a file

Connection configurations may be saved to a file for loading to one or more thin client appliances. This section describes loading a pre-

viously saved connection configuration file into ezRemote Manager and how to push it to one or more appliances.

Saving connection configuration: (For more information about how to save connection configurations to a file, see Figure , “Saving connection configurations to file,” on page 39.)

- 1 In the List View, select all of the appliances to be cloned to the saved connections.

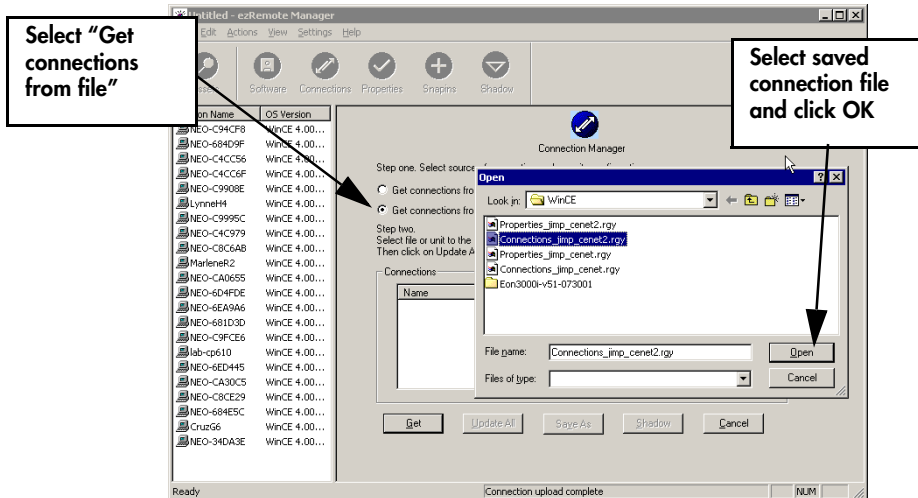


- 2 In the toolbar, click the Connections button, or select Connections from the Actions dropdown menu.

Note: If the selected group of appliances are based on more than one kind of software, you will be prompted to select which type of appliance you would like to update by choosing the appropriate software platform. Once you have selected the software platform, ezRemote Manager will single out the appliances running that software and allow you to continue cloning or editing your connections.

- 3 When the Connection Manager appears, select the radio button entitled: Get connections from file.

- Click the Get button and select the file to copied from the previously saved connection configurations.



- Click the Get button.

When ezRemote Manager finishes uploading the preconfigured connections, and lists them in the Connection Manager window, the Update All button will become active.

- To Copy or Clone the preconfigured connections to all of the appliances listed on the left-hand side, click the Update All button.
- When the Confirm Session Start dialog appears, click the Properties button to set the session parameters (see “Setting Session Parameters” on page 61), OK to begin the session immediately, or Cancel.

Note: If you choose to make the session delayed in the Set Session Parameters dialog, clicking the OK button will add the delayed session to the Task View instead of beginning the session immediately.

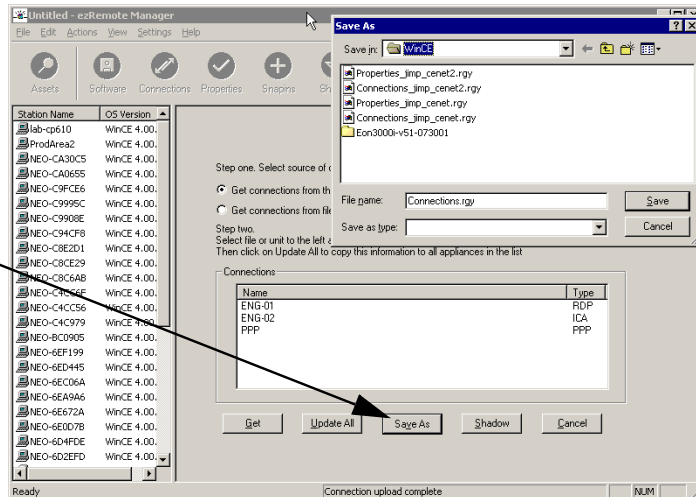
Saving connection configurations to file

Using ezRemote Manager it is possible to save the appliance connection information as a file. This saved file (by default, “Connections.rgy”) may be used as follows:

- To load into ezRemote Manager for configuring appliances at a later date. *See “Loading connection configurations from a file” on page 36.*
- As a template for the automatic ezUpdate procedure (see the Appendices dealing with the ezUpdate process), or
- For support and debugging purposes.

Once you have uploaded the connection information from your appliance by selecting an appliance and clicking the Get button, click the Save As button. The Save As dialog will appear, allowing you to specify the directory and file name of the appliance connection file that you chose to save.

When connections are finished uploading from the selected appliance, Save As is enabled.



CHAPTER 6

Property Manager

This chapter explains how to use ezRemote Manager to duplicate device configurations.

Device properties in thin client appliances

What are “properties”?

Neoware computing appliances running Neoware supported Windows CE and NeoLinux operating systems, use a registry-based configuration mechanism, that is configured through the connection manager thin client interface. The previous chapter (“CHAPTER 5 Connection Manager” on page 31) discusses copying or cloning connection definitions from one appliance to one or more others.

To provide a higher level of flexibility, without increasing complexity, Neoware separates the ability to clone connection configurations from the ability to clone or copy other appliance configuration items. Most of the appliance configuration parameters that are not copied or cloned using ezRemote Manager Connection Manager are cloned using the Property Manager interface.

Which thin client appliances support property cloning?

This chapter focuses on cloning configuration properties from and to the following thin client appliances running Neoware software:

- Capio I and II models running Neoware’s version of Windows CE software

- NetVista N2200 and N2800 models running NeoLinux or Neoware’s version of Windows CE software

Model Series	Operating System	Associated Part Numbers
Capio 500	Embedded	CP4A-AA
Eon Proven 2100		CP4E-AA
Eon Preferred 2000	Embedded	BA-EON2000E
		BA-EON2000X
Capio 600	Windows CE	CP4F-AA
Eon Proven 3100		CP4B-BA
		CP4G-BA
		CP4H-BB
Eon 3000	Windows CE	BA-EON3000X
Eon Preferred 3000		BA-EON3000I
NeoStation 3000		BA-EON3000I-3-6
		BA-N3000C
Eon 4000	NeoLinux	BA-EON4000I
Eon Preferred 4000		BA-EON4000S
Eon Professional 4300		BA-EON4000T
		BA-EON4300S
		BA-EON4300T

Neoware’s software, based on Windows XPe and Windows NTe also include configuration properties. Those properties are automatically duplicated, along with connection and user configuration, when the thin client appliance software is cloned. This chapter does not pertain to Windows XPe and Windows NTe thin client appliances. (For information about cloning Windows XPe/NTe appliances, see “XPe/NTe software cloning” on page 28.)

Which appliance configuration items are not cloned using Property Manager?

The items not cloned using Property Manager are:

- Connection definitions (these are cloned using the Connection Manager dialog)
- IP address
- Host name
- Configuration password (except NeoLinux-based appliances)

Which appliance configuration items are cloned using Property Manager?

The following are examples of configuration settings (properties) cloned by ezRemote Manager's Property Manager interface (not all settings are supported in both NeoLinux and Windows CE):

- Display resolution and refresh rate
- Screen saver settings
- Setting to get network configuration from DHCP
- RDP printer settings
- LPD printer settings
- TCP printer settings
- ThinPrint settings
- Touch screen settings
- Global ICA settings
- Global RDP settings
- Audio volume settings
- Date, time, and time zone
- Web browser / Internet configuration settings (CE only)
- Connection Manager settings (security, appearance, automatic start-up settings)
- Security settings (but not password)
- ezAnywhere shadowing settings
- Mouse settings
- Keyboard settings (locale and Num Lock key behavior at startup)

Why clone properties?

Save time configuring thin client appliances

Individual thin client appliances can be configured at the desktop when installed or whenever network resources change. This configuration usually includes initially setting up monitor resolution, the network, defining printers, and deciding to which servers, applications, and Web sites the thin client user may have access. While this configuration doesn't take much time for an individual appliance, initially configuring or changing the configurations on more than a few thin client devices can consume a lot of administrator resources.

The alternative to individual client configuration is to configure a single appliance (the “template” appliance) with a *standard* configuration that other devices can use, and to then *clone* that configuration and *copy* it to the other thin client appliances. ezRemote Manager makes cloning and copying thin client configurations easy and quick.

Save standard configurations as backups

Saving the template configuration to file provides a way to archive and back up your thin client appliance configurations. Multiple configuration files can be saved for later access and restoration using ezRemote Manager.

Create ezUpdate server configuration files

The property cloning mechanism used by ezRemote Manager to *push* new or updated configurations to target thin client appliances can also be used to create configuration files that can be *pulled* by same-model thin client appliances from ezUpdate servers. (For more information about setting up an ezUpdate server: see “Appendix B: ezUpdate for Windows CE Appliances” on page 75, or see “Appendix C: ezUpdate for NeoLinux Appliances” on page 85.)

Setting up the template master appliance

Caution

Because Neoware's ezRemote Manager is an enterprise-class tool that can manage thousands of appliances, it is important that you test configurations carefully before "cloning" them to other appliances.

Using ezRemote Manager to manage the appliance properties of your Neoware thin client devices is easy. The process begins at the appliance itself.

To be sure that the template appliance is correctly configured, it is important to set up and test the device configurations before copying them. Test configurations for multiple appliances on an appliance connected to the same network environment that all copied appliances will use. This can be accomplished using the ezAnywhere shadowing feature of ezRemote Manager (see "ezAnywhere Shadowing" on page 57). Testing may also be performed in front of a thin client appliance.

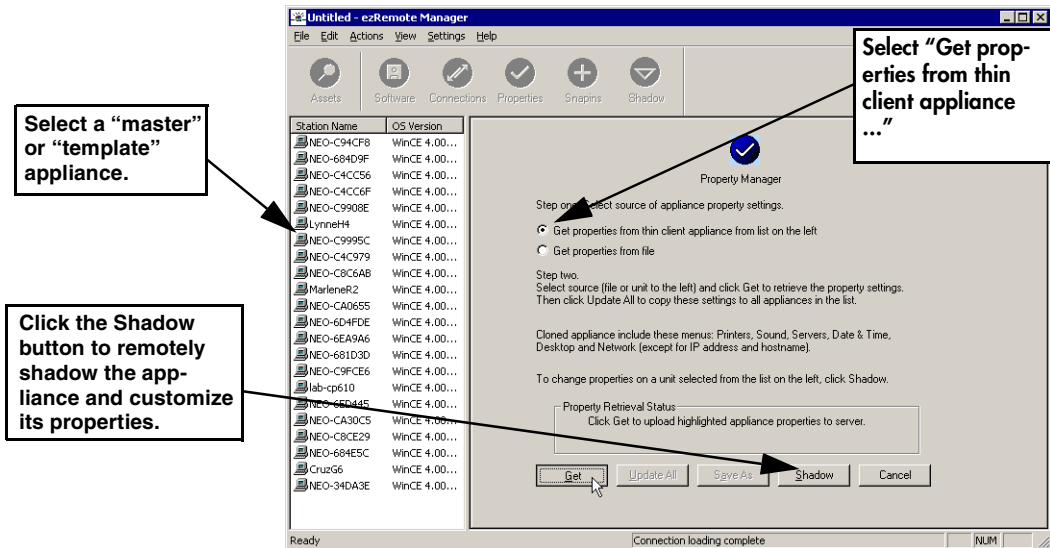
By either using the actual thin client appliance as the template source device, or using ezAnywhere shadowing, make the configuration changes (or initial configuration) that you wish to copy to other devices.

Setting appliance properties using ezAnywhere shadowing

- 1 In the List View, select the NeoLinux or Windows CE appliance(s) to manage using the Property Manager.
- 2 In the toolbar, click the Properties button, or select Properties from the Actions dropdown menu.
- 3 When the Property Manager appears, select a "master" or "template" appliance from the list of appliances on the left-hand side.

Note: Later in this procedure, you will be able to customize this appliance for it to become a "master" or "template" from which you can clone its properties.

4 Click the Shadow button.



Depending upon the configuration settings on the appliance you are trying to shadow, you may have to wait for an approval of the appliance user before you can shadow their appliance. Also, you may have to wait for an approval timeout, which will occur if the user is not at their appliance when you attempt to shadow it. A window will appear containing the chosen appliance's current desktop.

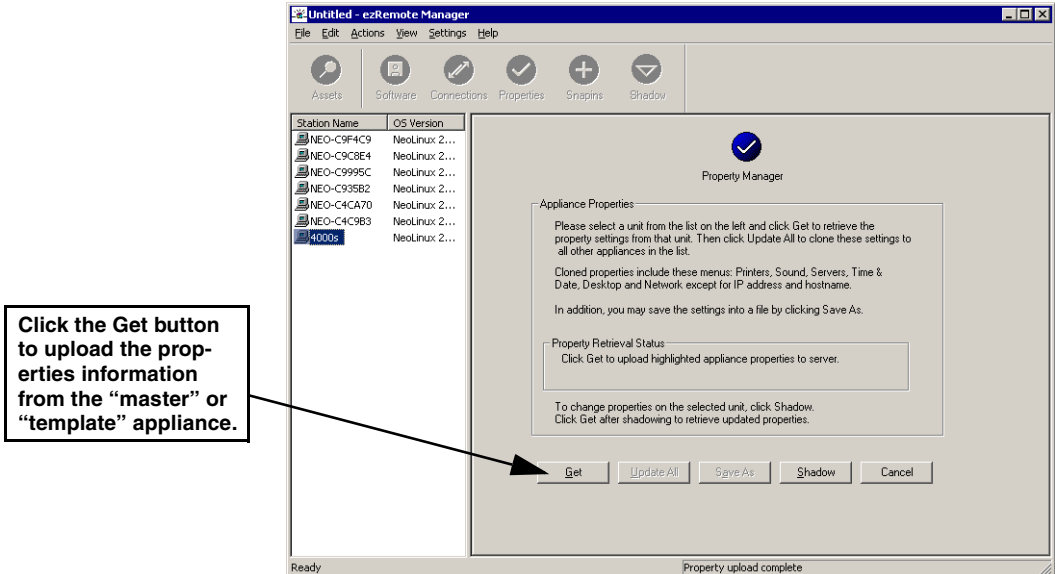
- 5 If the Neoware connection manager does not appear on the screen which you are shadowing, use the CTRL+ALT+END keyboard shortcut to make it appear. If the connection manager appears when the shadow window comes up, skip to the next step.

Note: The CTRL+ALT+END keyboard shortcut won't work if you are running ezRemote Manager from a Neoware appliance that uses the CTRL+ALT+END keyboard shortcut itself (NeoLinux and Windows CE-based thin client appliances).

- 6 Using the ezConnect menus (in NeoLinux) or the Neoware Appliance Properties dialog (in Windows CE, accessed by pressing F2 from the connection manager screen), customize the appli-

ances' properties (for more information on customizing your appliances' properties see either the *NeoLinux User Manual* or the *Windows CE User Manual*). When finished close the ezAnywhere shadowing window.

- 7 Select the “master” or “template” appliance from the list of appliances on the left-hand side.
- 8 Click the Get button.



ezRemote Manager will upload the appliance's property information from the “master” or “template” appliance.

- 9 To copy or clone the “master” or “template” appliance's properties to other appliances in the left-pane list, click the Update All button.

Note: You can also save the “master” or “template” appliances' properties to a file by clicking the Save As button (See “Saving properties configurations to file” below for more information concerning this feature).

- 10 When the Confirm Session Start dialog appears, click Properties to set the session parameters (see “Setting Session Parameters”


on page 61), OK to begin the session immediately, or Cancel.
Note: If you choose to make the session delayed in the Set Session Parameters dialog, clicking the OK button will add the delayed session to the Task View instead of beginning the session immediately.

Loading property settings from a file

Property settings may be saved to a file for loading to one or more thin client appliances. This section describes loading a previously saved property settings file into ezRemote Manager, and how to push the property settings updates to one or more appliances.

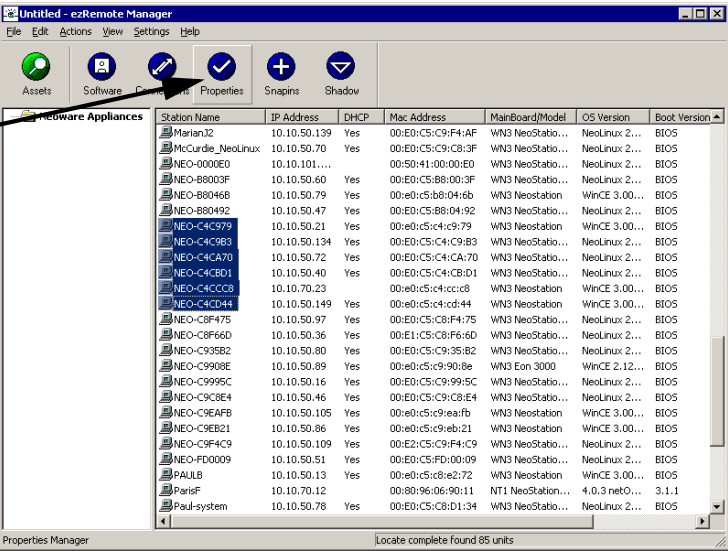
Saving properties configuration: (For more information about how to save connection configurations to a file, see “Saving properties configurations to file” on page 50.)

- 1 In the List View, select all of the appliances to be cloned to the saved properties.



Properties

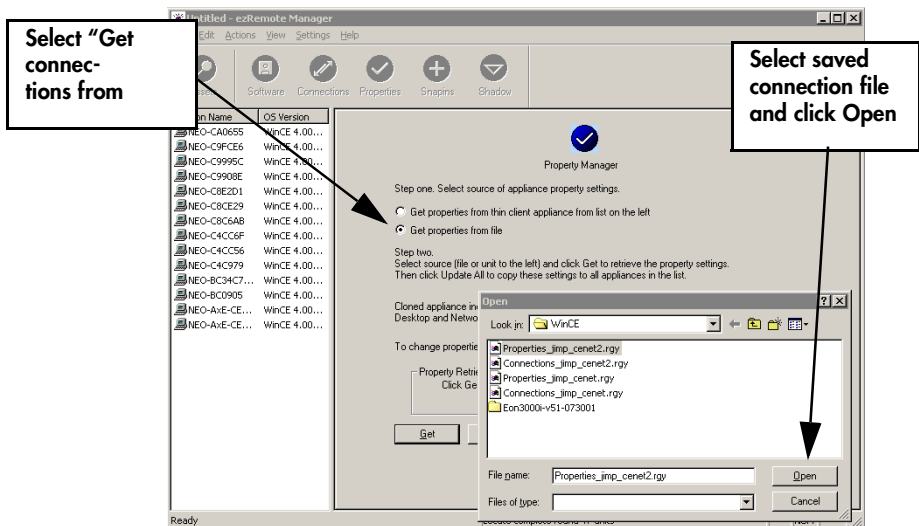
Properties Manager



- 2 In the toolbar, click the Properties button, or select Properties from the Actions dropdown menu .

Note: If the selected group of appliances are based on more than one kind of software, you will be prompted to select which type of appliance to update by choosing the appropriate software platform. Once you have selected the software platform, ezRemote Manager will single out the appliances running that software and allow you to continue cloning or editing your connections.

- 3 When the Properties Manager appears, select the radio button entitled: Get connections from file.
- 4 Click the Get button and select the file to copy from the list of previously saved connection configurations.



- 5 Click the Get button.
- When ezRemote Manager finishes uploading the preconfigured properties, the Update All button will become active.
- 6 To Copy or Clone the preconfigured properties to all of the appliances listed on the left-hand side, click the Update All button.
 - 7 When the Confirm Session Start dialog appears, click the Properties button to set the session parameters (see “ Setting Session Parameters” on page 61), OK to begin the session immediately, or Cancel.

Note: If you choose to make the session delayed in the Set Session Parameters dialog, clicking the OK button will add the delayed session to the Task View instead of beginning the session immediately.

Saving properties configurations to file

Using ezRemote Manager it is also possible to save the appliance property information as a file; to be used as a template for the ezUpdate automatic update procedure (see the Appendices dealing with the ezUpdate process); or for support and debugging purposes. Once you have pulled the appliance properties from your appliance by selecting an appliance and clicking the Get button, click the Save As button. The Save As dialog will appear allowing you to specify the directory and file name of the appliance property file that you would like to save.

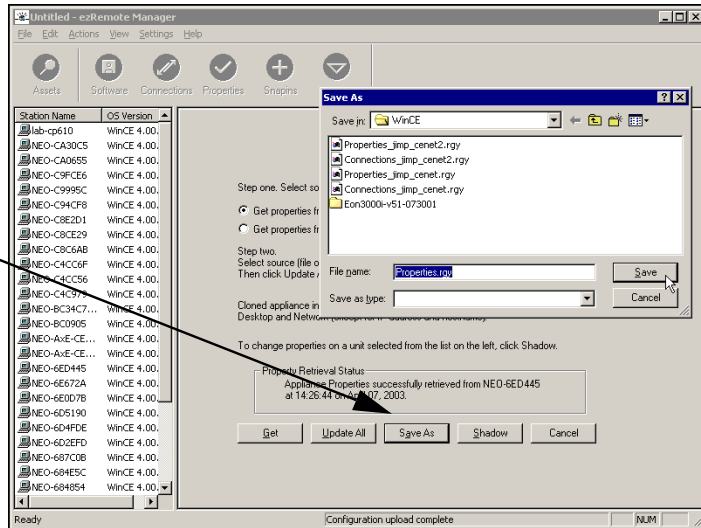
Using ezRemote Manager, it is possible to save the appliance properties information as a file. This saved file (by default, “Properties.rgy”) may be used as follows:

- Loaded into ezRemote Manager for configuring appliances at a later date (see “Loading property settings from a file” on page 48.)
- As a template for the automatic ezUpdate procedure (see the Appendices dealing with the ezUpdate process), or
- For support and debugging purposes.

Once you have uploaded the appliance properties information from your appliance by selecting an appliance and clicking the Get button, click the Save As button. The Save As dialog will appear allowing

you to specify the directory and file name of the appliance connection file to be saved.

When properties are finished uploading from the selected appliance, Save As is enabled.



CHAPTER 7

Snap-In Manager

This chapter explains how to remotely apply modular updates to Neoware appliance software and appliance configurations.

What is a Snap-In?

All of Neoware's thin client appliance operating systems utilize real filesystems in Flash disk memory instead of monolithic Flash images. They also use registry-based configuration mechanisms. The combination of real filesystems and registry-based configuration allows Neoware customers to add software, or update software modules and device configuration, without having to move an entire Flash memory image into each appliance.

Modular software additions and updates tend to only be as big as they have to be (and in some cases may be only a few kilobytes of information), and registry changes are similarly small. This speeds the update process, and helps alleviate bandwidth impact on busy networks and low-bandwidth connections.

ezSnap Technology

Neoware refers to this as our “ezSnap Technology.” Neoware makes snap-ins available to add capabilities to thin client appliances (such as adding Adobe Acrobat Reader plug-in to NeoLinux and Windows XPe thin client appliances). Neoware Tech Support provides snap-ins to help diagnose customer problems. Customers can develop and use their own snap-ins, since the technology is completely standards based.

Snap-In Manager

Apply snap-ins and more

ezRemote Manager’s Snap-In Manager provides the following functions:


- Snap-in software additions, software updates, or configuration changes simultaneously into one or more thin client appliances
- Remotely execute file-based scripts in one or more thin client appliances
- Remotely execute a command in one or more thin client appliances

Snap-ins can be downloaded from the Support section of the Neoware Website at:

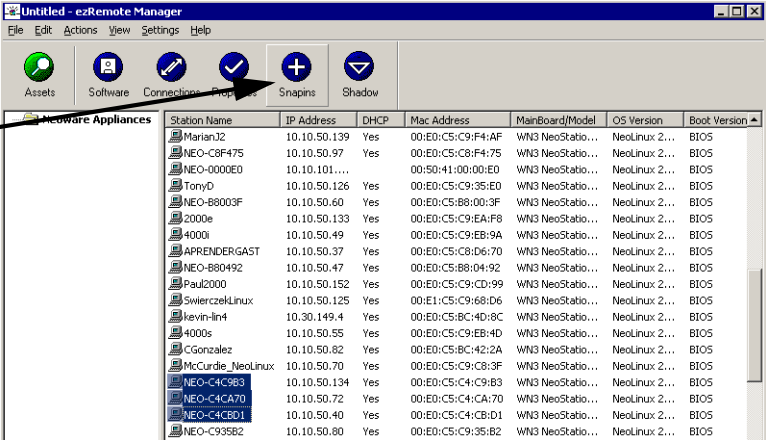
<http://www.neoware.com/downloads/>

Using the Snap-In Manager

- 1 Select one or more appliances from the List View.
- 2 In the ezRemote Manager toolbar, click the Snap-In button or select Snap-In from the Actions menu bar item.



Snap-In Manager



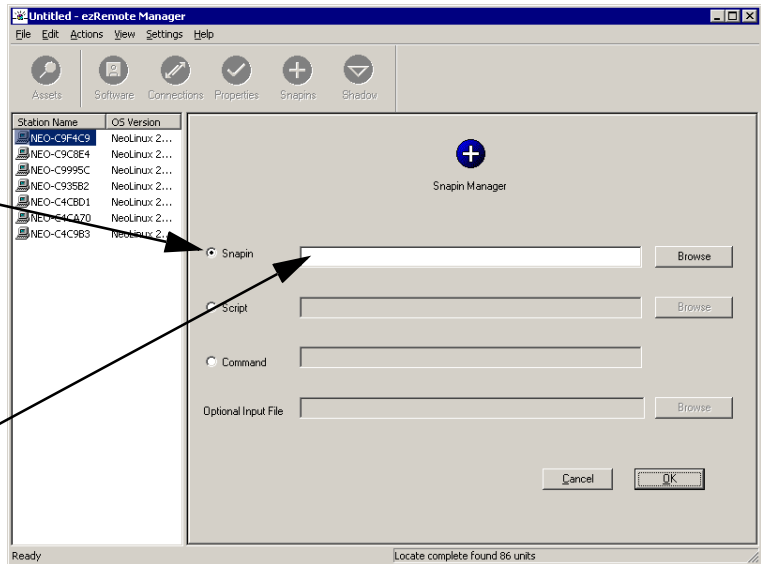
Station Name	IP Address	DHCP	Mac Address	MainBoard/Model	OS Version	Boot Version
MarianJ2	10.10.50.139	Yes	00:E0:C5:C9:F4:AF	WN3 NeoStatio...	Neolinux 2...	BIOS
NEO-C8F475	10.10.50.97	Yes	00:E0:C5:C8:F4:75	WN3 NeoStatio...	Neolinux 2...	BIOS
NEO-0000E0	10.10.101...		00:50:41:00:00:E0	WN3 NeoStatio...	Neolinux 2...	BIOS
TonyD	10.10.50.126	Yes	00:E0:C5:C9:35:E0	WN3 NeoStatio...	Neolinux 2...	BIOS
NEO-B8003F	10.10.50.60	Yes	00:E0:C5:B8:00:3F	WN3 NeoStatio...	Neolinux 2...	BIOS
2000e	10.10.50.133	Yes	00:E0:C5:C9:EA:F8	WN3 NeoStatio...	Neolinux 2...	BIOS
4000i	10.10.50.49	Yes	00:E0:C5:C9:EB:9A	WN3 NeoStatio...	Neolinux 2...	BIOS
APRENDERGAST	10.10.50.37	Yes	00:E0:C5:C8:D6:70	WN3 NeoStatio...	Neolinux 2...	BIOS
NEO-B80492	10.10.50.47	Yes	00:E0:C5:B8:04:92	WN3 NeoStatio...	Neolinux 2...	BIOS
Paul2000	10.10.50.152	Yes	00:E0:C5:C9:CD:99	WN3 NeoStatio...	Neolinux 2...	BIOS
SwierczekLinux	10.10.50.125	Yes	00:E1:C5:C9:68:D6	WN3 NeoStatio...	Neolinux 2...	BIOS
Kevin-lin4	10.30.149.4	Yes	00:E0:C5:BC:4D:8C	WN3 NeoStatio...	Neolinux 2...	BIOS
4000s	10.10.50.55	Yes	00:E0:C5:C9:EB:4D	WN3 NeoStatio...	Neolinux 2...	BIOS
CGonzalez	10.10.50.82	Yes	00:E0:C5:BC:42:2A	WN3 NeoStatio...	Neolinux 2...	BIOS
McCurdie_NeoLinux	10.10.50.70	Yes	00:E0:C5:C9:C8:3F	WN3 NeoStatio...	Neolinux 2...	BIOS
NEO-C4C983	10.10.50.134	Yes	00:E0:C5:C4:C9:B3	WN3 NeoStatio...	Neolinux 2...	BIOS
NEO-C4CA70	10.10.50.72	Yes	00:E0:C5:C4:CA:70	WN3 NeoStatio...	Neolinux 2...	BIOS
NEO-C4CB01	10.10.50.40	Yes	00:E0:C5:C4:CB:D1	WN3 NeoStatio...	Neolinux 2...	BIOS
NEO-C935B2	10.10.50.80	Yes	00:E0:C5:C9:35:B2	WN3 NeoStatio...	Neolinux 2...	BIOS

Note: If the selected group of appliances include more than one operating system, you will be prompted to select which type of appliance to update by choosing the appropriate software platform. Once you have selected the software platform, ezRemote Manager will single out the appliances running that software and allow you to continue using Snap-In Manager.

- 3 When Snap-In Manager opens, select a radio button to specify either a snap-in, script, or command to add or execute on your appliance(s).

Select the radio button to specify the action you would like the Snap-in manager to perform.

Specify the file or command associated with the Snap-in action.



Note: You cannot run scripts on Windows CE or NTe based appliances.

- 4 In the accompanying text field specify the snap-in, script, or command you would like to run.
 - **Snap-ins** - Enter the full path and name of where the snap-in file is located on your server. Snap-in files have a *.do* extension. Click the Browse button to locate the snap-in file you would like to apply to the selected appliance(s).

- **Scripts** - For appliances running NeoLinux, the administrator can custom configure the appliance using bash scripting. The administrator can also specify a specific input file to be used in conjunction with a bash script. Enter the script file or commands and the optional input file you would like to run on the selected appliance(s).
 - **Command** - The administrator can custom configure the appliance using commands. Neolinux based appliances use shell commands, and Windows based appliances use command line. The administrator can also specify a specific input file to be used in conjunction with a command. Enter the command and the optional input file you would like to run on the selected appliance(s).
- 5 After you have specified the snap-in, script, or command, click the OK button.
 - 6 When the Confirm Session Start dialog appears, click the Properties button to set the session parameters (see “ Setting Session Parameters” on page 61), OK to begin the session immediately, or Cancel.

Note: If you choose to make the session delayed in the Set Session Parameters dialog, clicking the OK button will add the delayed session to the Task View instead of beginning the session immediately.

CHAPTER 8

*ezAnywhere
Shadowing*

This chapter explains how to remotely access a Neoware appliance using ezAnywhere shadowing.

What is shadowing?

Remote viewing and control

ezAnywhere shadowing, accessed through ezRemote Manager, allows an administrator to remotely view and/or control an active session of any Neoware thin client appliance. Because the administrator can either view or actively control the remote session, including being able to input keyboard and mouse actions to the remote session, ezAnywhere shadowing can be used to remotely configure a thin client appliance, or to assist a remote user in typical help desk functions.

ezAnywhere shadowing does not depend on having an active ICA or RDP session active on the remote appliance, allowing an administrator to remotely configure unattended appliances. Multiple shadowing sessions can be opened simultaneously on a single desktop; each one appears in its own window.

Underlying protocol

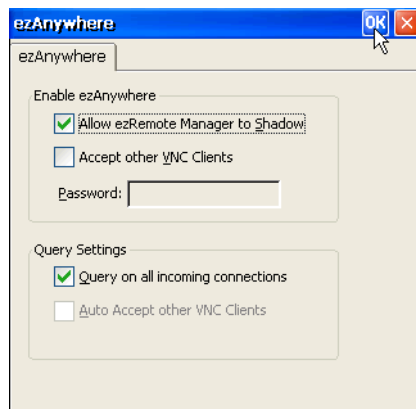
ezAnywhere shadowing is based on industry-standard VNC protocols. ezAnywhere shadowing is independent of both ICA and RDP protocols so that unattended devices can be managed.

In the standard default configuration of Neoware desktop operating systems, only VNC sessions initiated by ezRemote Manager will

be accepted by the thin client appliance. The desktop operating systems also have settings to disable ezAnywhere shadowing, although remote configuration of devices is not as convenient as when shadowing is enabled.

What is required to shadow a remote appliance

Client configuration The thin client appliance must be configured to accept ezAnywhere shadowing. The default configuration in all software versions is to *enable* ezAnywhere shadowing.

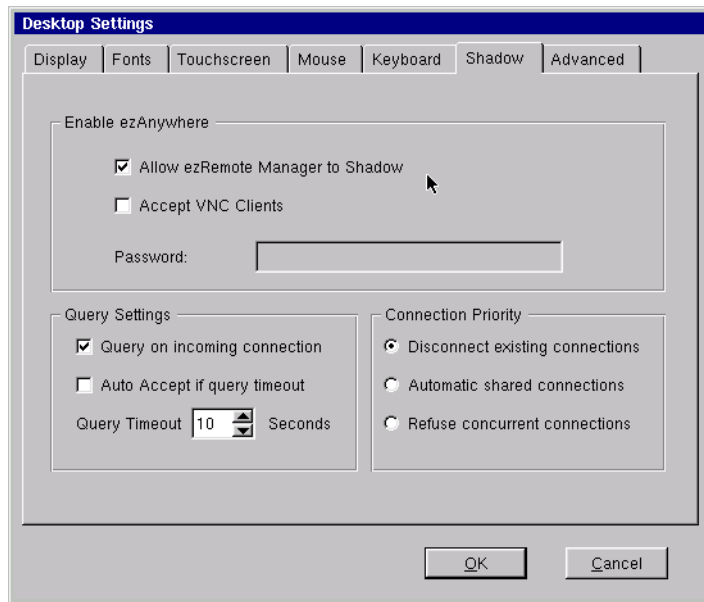


In Windows CE appliances

Open the ezAnywhere applet from the Appliance Properties Control Panel tab.

The checkbox for Allow ezRemote Manager to Shadow must be checked.

In NeoLinux appliances



Open the ezAnywhere control from ezConnect Connection Manager menus: **Settings | Appliance Properties | Desktop | Shadow** tab.

The checkbox for Allow ezRemote Manager to Shadow must be checked.

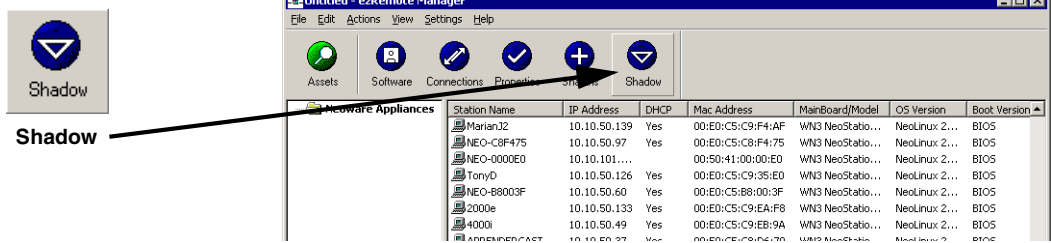
ezAnywhere shadowing and passwords

If a thin client configuration password has been set on an appliance, that password must be used to access an ezAnywhere shadowed desktop.

Initiating an ezAnywhere shadowing session

- 1 Select an appliance from the List View.
- 2 In the ezRemote Manager toolbar, click the Shadow button or

select Shadow from the Actions menu bar item.



Depending upon the configuration settings on the appliance you are trying to shadow, you may have to wait for an approval from the appliance user before you can shadow their appliance. Also, you may have to wait for an approval timeout, which will occur if the user is not at their appliance when you attempt to shadow it. If shadowing is allowed, window will appear containing the activity of the appliance.

Note: It is possible to establish multiple shadowing sessions (simultaneously connecting to different thin client appliances), however you must establish them one by one following the instructions above.

Error messages during ezAnywhere session initiation

The following messages may appear when you attempt to initiate an ezAnywhere shadowing session:

- **Shadow session already running. Do you want to replace it with a new one?**
This message occurs if you attempt to connect to a thin client appliance when a shadowing session is already in progress. Clicking **Yes** will replace the running session with a new one.
- **Shadow sessions have been disabled on this appliance!**
This message occurs if the target thin client appliance has been configured to disallow ezAnywhere shadowing sessions.
- **Error creating shadow session**
This message occurs when attempting to connect to an appliance that does not support ezAnywhere shadowing, or from network or configuration errors.

CHAPTER 9

Sessions

This chapter explains how to set Session Parameters and use the task view of ezRemote Manager after you have created sessions to update your Neoware computing appliances.

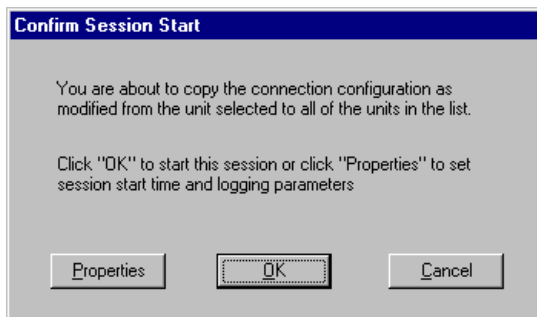
Setting Session Parameters

A session is any defined task that you set ezRemote Manager to perform. This includes such tasks as software updates, connection cloning, etc. Using ezRemote Manager, it is also possible to either define multiple sessions for scheduling future tasks to be performed, or to define a series of tasks to be performed in a specific order. When multiple sessions are defined, each session is represented as a separate tab in the task view (see “Task view” on page 64).

WARNING

Please do not attempt to create more than one simultaneous full-image software update sessions on a single ezRemote Manager server. Doing so can bypass the network services throttle built-in to ezRemote Manager and result in incomplete software updates and corrupted Flash Disks.

After specifying changes to one or more appliances using ezRemote Manager, a Confirm Session Start dialog will appear.

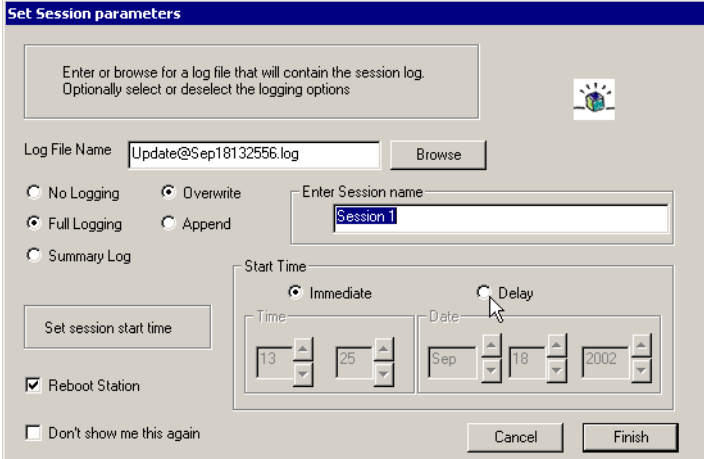


Instead of clicking OK to begin the session immediately, click Properties to bring up the Set Session Parameters dialog. In Set

Session Parameters, you can give each session a name, a delayed start time, set logging options, and set the option to reboot the appliance after the session is complete.

Using the Set Session Parameters Dialog

Using the Set Session Parameters dialog the user can specify the following parameters:

The image shows a Windows-style dialog box titled "Set Session parameters". It has a blue title bar. Inside, there's a text box for "Log File Name" containing "Update@Sep18132556.log" and a "Browse" button. Below this are two columns of radio buttons for logging options: "No Logging", "Full Logging", "Summary Log" in the first column, and "Overwrite", "Append" in the second. To the right is a text box for "Enter Session name" containing "Session 1". Below that is a "Start Time" section with "Immediate" and "Delay" radio buttons. The "Delay" button is selected, and it has a sub-dialog for date and time selection showing "Sep 18 2002" and "13:25". At the bottom left is a "Reboot Station" checkbox which is checked, and a "Don't show me this again" checkbox which is unchecked. "Cancel" and "Finish" buttons are at the bottom right.

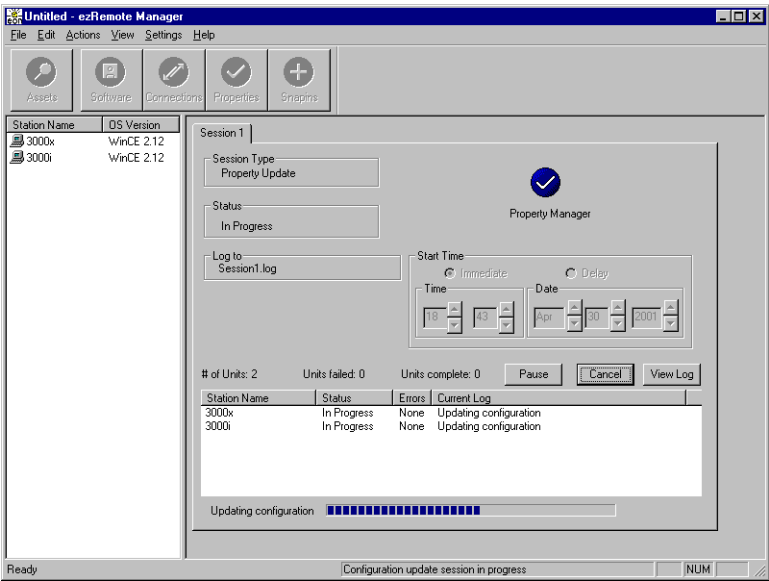
- **Log File Name** - In the accompanying field, type the name of the log file to either use or create for the update session you are performing.
- **Log File Properties** - Below the Log File Name parameter are two columns of radio buttons that set the properties of the Log file. The choices available in the first column specify the type of logging you choose ezRemote Manager to perform. These choices include No Logging, Full Logging, and Summary Log. The choices in the second column specify whether you choose to overwrite or append the log file specified in the Log File Name field.
- **Enter Session Name** - In the accompanying field, type a name for this session. The name will appear as the tab name in the Task View. If multiple sessions are defined, you may check each session's progress by clicking on the appropriate tab.

- **Start Time** - Select whether you want this session to begin immediately or be delayed. If you choose delay, select the time and date when you would like the session to occur.
Note: The time is based on a 24-hour clock, so if you wanted your session to occur at 10:20 pm then you would select 22 in the first field and 20 in the second.
- **Reboot Station** - If you want the station(s) to reboot after the update session is completed, then select this checkbox.
Note: Certain updates require a reboot in order to be applied properly.

After you have finished setting the session parameters, click Finish. The Confirm Session Start dialog will reappear allowing you to click the OK button which, depending on your settings, will begin the session immediately or add it to the Task View as a delayed session.

Task view

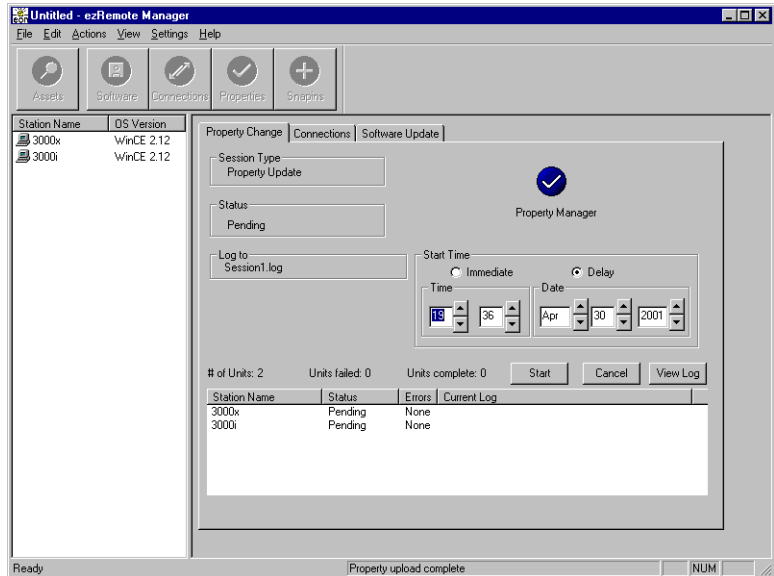
Once a session is begun or set as a delayed session, the task view will appear with each session displayed in its own tabbed dialog. Clicking on each tab (when more than one task has been defined) displays the session type, status, log file to be used or created, start time (or progress if the task is currently running), and details concerning the appliances to be modified.



Task View
(Session in Progress)

Task view actions

To select a specific session, select the tab labelled with the session name. Once you select the tab you will be able to do the following:



Task View (Delayed Sessions)

- **Start Time** - You can make any delayed sessions begin immediately by selecting the immediate radio button, and then clicking the Start button. You can also change the time and date that you set a delayed session to occur.

Note: The time is based on a 24-hour clock, so if you set your session to occur at 10:20 pm then you would select 22 in the first field and 20 in the second.

- **Cancel** - You can cancel any session by clicking the cancel button.

Caution: Canceling a session while it is in progress could leave your appliance in a non-working state.

- **View Log** - Clicking the View Log button while a session is in progress, or after it has completed, will allow the user to view the contents of the log file. The log file contains information about the action performed on the appliance during the update.

Note: The information logged in the log file will vary, depending upon the type of logging you selected in the Set Session Parameters dialog. The default setting for the type of logging is Summary Log information.

- **Close** - After a session is completed, the Cancel button changes to Close. Select the Close button, and you will return to the List View.

Switching to the list view

While in Task View, you can switch to the List View by selecting View | List View from the menu bar.

Adjusting the task view

- To hide the ezRemote Manager toolbar or status bar, deselect them in the View menu.
- To change the width of the ezRemote Manager left window, drag the bar between it and the main window. Or select Split from the View menu, and then drag the bar.

CHAPTER 10

Wake on LAN Operations

This chapter explains how ezRemote Manager uses Wake on LAN to power on thin client appliances.

Wake on LAN and ezRemote Manager

What is Wake on LAN?

“Wake on LAN” (WOL) is a network technology that enables you to remotely wake up, or power networked systems “on” for management tasks — even when they have been powered “off.” WOL uses a “magic packet” that is sent to the target device using the device’s MAC address.

What does WOL do in ezRemote Manager?

ezRemote Manager allows you to remotely wake powered-off Eon and Capio thin client appliances using WOL technology. To use WOL, you must first have displayed (in list view) an asset list that contains the device(s) you plan to awaken or manage. In most instances, that will be a saved asset list database you retrieve into ezRemote Manager (see “Saving and retrieving asset lists” on page 22).

ezRemote Manager incorporates two distinct mechanisms that use WOL to wake up appliances:

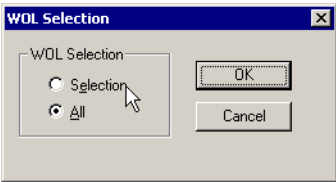
- **Wake on LAN on demand.** Wake up selected appliances, or all appliances in the current list view, when initiated by ezRemote Manager user.
- **Automatic Wake on LAN.** Wake up appliances automatically when they fail to respond to ezRemote Manager during a task.

Wake on LAN on demand

You can wake up one or more appliance selected in the list view, or all appliances in the current list view (right-hand pane):

- 1 Right-click on a thin client appliance (or a multiple-device selection) in the list view.
- 2 Select **WOL** from the pop-up context menu.
- 3 In the resulting WOL Selection dialog, select either All (to wake all of the appliances in the current list view) or Selection (to wake only the device(s) currently selected in list view.)

Station Name	IP Address
NEO-CA0655	10.10.50.44
NEO-C98F60	10.10.50.154
NEO-C968D6	10.10.50.223
NEO-C94CF8	10.10.50.146
NEO-C8E2D1	10.10.50.11
NEO-C8D137	10.10.50.93
NEO-C8CE29	10.10.50.20
NEO-C4CC56	10.10.50.17
NEO-6EC06A	10.10.50.117
	10.10.50.31
	10.10.50.133
	10.10.50.61
	10.10.50.149
	10.10.50.45
	10.10.50.145
	10.10.50.23



- 4 Click OK.

Automatic Wake on LAN (Auto WOL)

You can configure the software to automatically awaken thin client appliances, whenever (the appliances) do not respond to ezRemote Manager. The Auto WOL setting controls the ezRemote Manager behavior during all configuration or software-related tasks. When Auto WOL is enabled, and ezRemote Manager attempts to communicate with an appliance not responding, the software automatically sends a Wake on LAN packet to the appliance and waits for it to reboot. Then the software will attempt to communicate with the appliance again. This cycle is repeated seven times, then ezRemote Man-

ager issues a time-out error and continues with the next appliance in the list (if any).

For example: If a scheduled software update is to take place on a group of appliances during a period when no user activity is expected, one or more of the appliances may be powered off. With Auto WOL enabled, if any remote appliance does not respond to ezRemote Manager, the software will: a) send a WOL packet to the appliance, b) wait for the appliance to reboot, and then c) try to reach the appliance again. If there is still no response, ezRemote Manager will repeat the cycle until the remote appliance wakes and responds. If the appliance doesn't respond after seven attempts, ezRemote Manager shows a time-out error in the log, and moves on to the next appliance in the list to update.

ezRemote Manager tasks affected by Auto WOL

These are the tasks that are affected by the Auto WOL setting:

- All Software Manager functions (See “CHAPTER 4, Updating Appliance Software” on page 25)
- All Connection Manager functions (See “CHAPTER 5, Connection Manager” on page 31)
- All Properties Manager functions (See “CHAPTER 6, Property Manager” on page 41)
- All Snap-Ins Manager functions (See “CHAPTER 7, Snap-In Manager” on page 53)
- All ezAnywhere shadowing functions (See “CHAPTER 8, ezAnywhere Shadowing” on page 57)

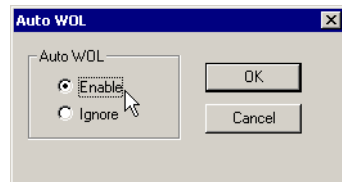
Configuring automatic Wake on LAN (Auto WOL)

You configure Automatic Wake on LAN (Auto WOL) through the Auto WOL dialog:

- 1 Select Auto WOL from the Settings menu.



- 2** In the Auto WOL dialog, click the Enabled radio button to on turn Automatic Wake on LAN. Click the Ignore radio button to turn off Automatic Wake on LAN.
- 3** Click OK to save the setting.



Appendix A: Broadcast SNMP and Router Configuration

This appendix discusses router/switch configuration issues with respect to automatically locating Neoware appliances across subnetted networks.

ezRemote Manager access to separate subnets through Cisco routers

ezRemote Manager uses SNMP (Simple Network Management Protocol) broadcasts to automatically locate Neoware appliances on your network (when you click on the Locate button or use the Actions | Locate menu item). Customers with large, segmented networks may need to make configuration adjustments (in their routers) to use the automatic location function for appliances, located on subnets different from the one on which the ezRemote Manager server is located.

For ezRemote Manager to locate and display information about Neoware appliances (that are running on a subnet different from the one on which the ezRemote Manager server is running), two conditions must be met:

- A route must be defined from the server that will be hosting ezRemote Manager to the relevant router.
- The router must be configured to allow SNMP directed broadcasts through to the subnet.

For the following examples:

- | | |
|--|------------|
| • IP Address of ezRemote Manager server: | 10.30.3.16 |
| • IP Address of Cisco router: | 10.30.1.1 |
| • Class A subnet where appliances are located: | 100.0.0.0 |
| • Subnet mask | 255.0.0.0 |

Adding a route to your server

If your server is not already configured to locate the subnet on which you are trying to locate Neoware appliances, you can add a route as follows:

- 1 Open a Command Prompt window on the ezRemote Manager server.
- 2 At the command prompt, type:

```
route add 100.0.0.0 mask 255.0.0.0 10.30.1.1
```

which tells the server that any communication with 100.*.* addresses will be forwarded to 10.30.1.1 that is the IP address of the Cisco router. The router controls access to the 100.*.* subnet.

Configuring Router

The following example shows a running configuration file for a Cisco Series 2500 Router (running Version 12.0). It is intended only as an example, and should be modified with the appropriate network addressing scheme for your network.

This particular example is set up to only allow SNMP Directed Broadcasts from the server where ezRemote Manager is being executed (10.30.3.16) using a router in our networking laboratory. NOTE: You should not modify your router configurations without first consulting your router administrator and/or router documentation.

```
!  
version 12.0  
service timestamps debug uptime  
service timestamps log uptime  
no service password-encryption  
!  
hostname TRouter  
!  
enable secret 5 $1$1/Dx$BwQpvgkEIyL0OrT549NA9.  
enable password *****  
!  
ip subnet-zero  
ip domain-name neoware.com  
ip name-server 10.10.10.13  
!  
!  
!  
interface Ethernet0  
description connected to CorporateNetwork  
ip address 10.30.1.1 255.0.0.0
```

```

    ip directed-broadcast
!
interface Ethernet1
    description connected to Test EthernetLAN
    ip address 100.30.1.1 255.0.0.0
    ip access-group 102 in
    ip access-group 152 out
    ip directed-broadcast 176
!
interface Serial0
    no ip address
    no ip directed-broadcast
    no ip mroute-cache
    shutdown
!
interface Serial1
    no ip address
    no ip directed-broadcast
    shutdown
!
ip classless
!
access-list 102 permit ip any any
access-list 152 permit ip any any
access-list 176 permit udp host 10.30.3.16 any eq 161
access-list 176 deny ip any any
snmp-server community pub RW

!
line con 0
    transport input none
line aux 0
line vty 0 4
    password *****
    login
!
end
```

NOTE: Consult your router manuals and/or Cisco for specific instructions on how to modify running configurations for a particular router.

**Relevant Cisco
Router Commands**

ip directed-broadcast
ip forward-protocol
Extended IP Access List

Appendix B: ezUpdate for Windows CE Appliances

This appendix discusses how to use ezRemote Manager to create the configuration files needed to automatically update your Windows CE-based Neoware appliances' software, properties, and connections.

Windows CE ezUpdate

Both ezRemote Manager (2.2 or later) and Neoware software, (incorporating Windows CE (5.2 or later)) contain enhancements that allow for the automatic server update of appliance software, appliance configuration properties, and appliance server connections. These enhancements are collectively called "ezUpdate."

The use of this feature enables all Neoware Windows CE-based appliances to pull their configuration and/or software from a server when they are powered on for the first time. Additionally, each time the appliance is booted, it will check with the server to see if it needs to update its configuration and/or software.

Requirements

The following is a list of requirements to enable ezUpdate:

- One Neoware Windows CE-based appliance configured as a template, with all selected properties and connections deemed necessary for your appliance to have.
- Access to an FTP server, where configuration and software update packages can be installed, and a DHCP server, configured to provide Neoware appliances where to look for updated

configuration information and/or software. The FTP and DHCP servers can be resident on the same machine, but it is not a requirement.

- All Neoware Windows CE thin client appliances must be the same model, or have exactly the same hardware/software configuration. For example: ezUpdate will not work properly in an environment where some appliances are configured with ICA, RDP, and teamTALK, while others are configured with ICA, RDP, and Internet Explorer.

Overview of procedure

- Using ezRemote Manager, create property and/or connection template files from where your appliances update themselves (to be placed into FTP server file structure).
- Using ezRemote Manager, create a config.txt file to direct your appliances to the appropriate software and configuration template files.
- If you intend to use the ezUpdate automatic software update mechanism, then you must download and install a Neoware Software Windows CE update package.

FTP Server

On a FTP server, create a folder to store all of the ezUpdate automatic update files. These files are:

- *properties.rgy* - automatically updates appliance properties.
- *connections.rgy* - automatically updates appliance connections.
- *config.txt* - This file automatically updates an appliance.
- Neoware Windows CE release - These files automatically update appliance software, and must be stored in a subdirectory named 3000.

DHCP Tag 137

DHCP tag 137 is used to specify the FTP location (URL) of the configuration and/or software update files. Neoware Windows CE-based appliances use this tag when they are powered on, if it is provided.

The URL address will depend on the type and setup of the FTP server format you are running:

- For password-protected FTP, the URL should use the following format:

```
ftp://username:password@host/path_to_update_file_directory
```

- For anonymous FTP, then the URL should be in the following format:

```
ftp://host/path_to_update_file_directory
```

- When using anonymous FTP (and your FTP server resides on the same machine as your DHCP server), then the URL should be in the following format:

```
ftp://@DHCPSEVER/path_to_update_file_directory
```

Note: FTP filenames and paths should not contain spaces. If the DHCP server responds with a zero-length value, the automatic configuration update will be disabled.

Static IP Address

To set up a Neoware CE unit on a network without DHCP to use ezUpdate, the registry settings

```
[HKLM\Software\Neoware\Netconfig] "BasePath"= "ftp://<IPADDR>/neoware"
```

```
[HKLM\Software\Neoware\Netconfig] "DefaultBasePath"= "ftp://<IPADDR>/neoware"
```

must be set, where <IPADDR> is the IP address of the ezUpdate server.

Option 1:

A snap-in can be created based on the following example to set the registries in one or more Neoware Windows CE thin client appliances using ezRemote Manager:

```
----- (begin snapin text install.2do) -----
# install.2do for supporting ezUpdate on static IP units
# replace the "<IPADDR>" symbol with the IP address of the ezUpdate
  server.
CMD regmgr -s [HKLM\Software\Neoware\Netconfig] "BasePath" = "ftp://
  <IPADDR>/neoware"
```

```
CMD regmgr -s [HKLM\Software\Neoware\Netconfig] "DefaultBasePath"=
"ftp://<IPADDR>/neoware/"

CMD reboot

---- (end snapin text install.2do) ----
```

ezUpdate Server Configuration

Neoware Windows CE devices can access configuration updates, properties updates, and software updates from any standard FTP server. The underlying operating system doesn't matter. **Note:** The following instructions are for setting up ezUpdate on a Windows 2000 server, but can be adjusted for use with other Microsoft Windows server versions.

The path structure instructions may also be used on Unix/Linux FTP servers. However, ezUpdate files should not be edited using a Unix or Linux text editor, because most of those editors remove the `\r` (carriage return) character. The removal of the carriage return character will cause the ezUpdate interpreter in Windows CE to fail.

Basic FTP server setup

Make sure the FTP service (daemon) is running. In the "`Inetpub\Ftproot`" directory, create a folder named: "Neoware."

In the Neoware folder, place the file *install.exe* that came bundled with your Neoware CE software. If you are operating with Neoware 6.0.3 software, also place these files: *celock.dll*, *celockwrap.exe*, *safenetcopy.exe*, *regmerge.exe*, *regretrieve.dll*, *inputs.txt*, *mkregdir.dll* and *uninsp.dll* into that directory. Also, place the newer *install.exe* into the directory and overwrite the old one. The Neoware CE 6.0.3 ezUpdate files are backwards compatible with older versions of ezUpdate. They provide a more stable update process for all versions of Neoware's Windows CE thin client appliances.

Note: Ensure that the Neoware folder -- including all files and folders contained in that folder -- have permissions set appropriately. Most ezUpdate setups use anonymous FTP logon with all files and folders available with read-only access.

Obtain any registry files for connections or properties cloning. The simplest method is to use ezRemoteManager to retrieve the properties.rgy file and connections.rgy files. See “Creating ezUpdate files” on page 82.

Choosing the right instruction set

Following this paragraph are three sets of instructions: A, B, and C. Use the set(s) of instructions indicated according to your Neoware CE environment:

If you have Windows CE thin client appliances running the following Neoware software release versions:

5.2, 5.3, 5.3.1, or 5.3.2

5.2, 5.3, 5.3.1, or 5.3.2 and also units with 6.0, 6.0.1, 6.0.2, or 6.0.3

5.2, 5.3, 5.3.1, or 5.3.2 and you have units with 6.0, 6.0.1, or 6.0.2

6.0.3

Complete the instruction set(s)

Instruction Set A (below), only

Instruction Set A (below) and Instruction Set C (page 81)

Instruction Set B (page 80) and Instruction Set C (page 81)

Instruction Set C (page 81), only.

1 Instruction Set A

- 1 Locate the software update directory for the software you wish your 5.2, 5.3, 5.3.1, or 5.3.2 units to have installed. This is usually located in either a subdirectory under a "NeowareSoftware-Updates" directory or else a subdirectory under your ezRemoteManager installation. For example:

D:\NeowareSoftwareUpdates\WinCE\WinCE-v532-4-112002\3000

or

```
F:\Program Files\Neoware\WinCE\software\WinCE-v531-062102-3\3000
```

- 2 Copy the 3000 subdirectory into your "(ftproot)/Neoware" directory. In the 3000 directory, open the *system.rev* file with notepad and copy the contents.

- 3 In the "(ftproot)/Neoware" directory, create a *config.txt* file. The first line of the file should have the format:

```
SYSTEM "X" LOAD_AND_RUN /REBOOT install.exe 3000
```

Where X is the contents of the *system.rev* file.

- 4 If you have any registry files, most commonly the *properties.rgy* and *connections.rgy* created by ezRemoteManager, these will be added to the *config.txt* file next. For example:

```
PROPERTIES "November 20, 2002" UPDATE_REGISTRY Properties.rgy
```

```
CONNECTIONS "November 20, 2002" UPDATE_REGISTRY /REBOOT Connections.rgy
```

There can be many additional registry files, and the date format is unimportant. However, prior to Neoware Rel. 6.0.3 there is a size limit of 64 KB per registry file. If the *connections.rgy* file, for instance, is 80K, it is possible to manually separate it into a 40K file *connections1.rgy* and a 40K *connections2.rgy* and modify the *config.txt*:

```
PROPERTIES "November 20, 2002" UPDATE_REGISTRY Properties.rgy
```

```
CONNECTIONS1 "November 20, 2002" UPDATE_REGISTRY /REBOOT Connections1.rgy
```

```
CONNECTIONS2 "November 20, 2002" UPDATE_REGISTRY /REBOOT Connections2.rgy
```

Instruction Set B

To synchronize ezUpdate's behavior for Neoware Releases 6.0, 6.0.1, 6.02, and 6.0.3, an extra update process is necessary.

- 1 In the "(ftproot)/Neoware" folder on the ezUpdate server, create a folder with the name "3000".

-
- 2 In the "(ftproot)/Neoware" directory also place a config.txt file with the text:

```
SYSTEM "X" LOAD_AND_RUN /REBOOT install.exe 3000
```

Where the value of "X" will be explained in step 3.

Note: If you have a mixed environment with 5.3, 5.3.1, or 5.3.2 units, this extra update MUST contain a full update of that software. For example: If you possess units that are running 5.3.2 software, the update must be a correctly configured update of that software and X should be the contents of the 5.3.2 software system.rev file. The 3000 directory must contain the correct update files, as detailed under Instruction Set A.

If you do not possess any units running 5.3, 5.3.1, or 5.3.2 software, the "X" value in the config.txt can have any value you want (e.g. "test") and the 3000 subdirectory may remain empty.

Instruction Set C

- 1 Create a subdirectory in the "(ftproot)/Neoware" directory named "CeNet".
- 2 Follow steps 1 through 5 under the Instruction Set A with two changes:

A. Place all of the files and folders generated into the CeNet subdirectory. Instead of neoware/3000, neoware/config.txt, neoware/connections.rgy, and neoware/properties.rgy, the set up will involve neoware/cenet/3000, neoware/cenet/config.txt, neoware/cenet/connections.rgy, and neoware/cenet/properties.rgy.

B. Change the references in the config.txt file accordingly to reflect the new directory structure.. Instead of a config.txt in the format:

```
SYSTEM "6.0.3 (Built on Feb 20 2002 at 21:06:07)"
                                LOAD_AND_RUN /REBOOT install.exe
                                3000

PROPERTIES "November 20, 2002" UPDATE_REGISTRY /REBOOT Prop-
                                erties.rgy

CONNECTIONS "November 22, 2002" UPDATE_REGISTRY Connec-
                                tions.rgy
```

The new config.txt would have the format:

```
SYSTEM "6.0.3 (Built on Feb 20 2002 at 21:06:07)"  
LOAD_AND_RUN /REBOOT install.exe  
CeNet/3000  
  
PROPERTIES "November 20, 2002" UPDATE_REGISTRY /REBOOT  
CeNet/Properties.rgy  
  
CONNECTIONS "November 22, 2002" UPDATE_REGISTRY CeNet/Con-  
nections.rgy
```

Creating ezUpdate files

properties.rgy

This plain-text file contains a full description of the Neoware appliance properties that you would like to be automatically set. This includes settings such as display, keyboard, screen saver, overall security, etc. To create the *properties.rgy* file:

- 1** Using ezRemote Manager, locate the appliance with the properties that you would like to use as a template.
- 2** Select the template appliance in the List View and click the Properties button in the ezRemote Manager toolbar, or select Properties from the Actions menu bar item.
- 3** When the Neoware Appliance Properties tabbed dialog appears, select the template appliance from the list of appliances on the left-hand side.
- 4** Click the Get button.
When ezRemote Manager finishes uploading the appliance's properties, the Save As button will become active.
- 5** Click the Save As button.
The Save As dialog will open.
- 6** Browse to either the FTP directory or a temporary directory and click the Save button.

In order for ezUpdate to function properly, this file must be placed in the FTP directory to which the DHCP tag 137 specifies.

connections.rgy

This plain-text file contains a full description of the Neoware appliance server connection to be automatically set. To create the *connections.rgy* file:

- 1** Using ezRemote Manager, locate the appliance with the connections to be used as a template.
- 2** Select the template appliance in the List View and click the Connections button in the ezRemote Manager toolbar, or select Connections from the Actions menu bar item.
- 3** When the Neoware Appliance Connection Manager appears, select the template appliance from the list of appliances on the left-hand side.
- 4** Click the Get button.
When ezRemote Manager finishes uploading the appliance's connections, the Save As button will become active.
- 5** Click the Save As button.
The Save As dialog will open.
- 6** Browse to either the FTP directory or a temporary directory and click the Save button.

For ezUpdate to function properly, this file must be placed in the FTP directory the DHCP tag 137 specifies.

config.txt

This file describes the software, connection, and property configuration versions available on the FTP server for appliances to download. To create the *config.txt* file:

- 1** Select Auto Update from the Actions menu.
The Create Auto Update Configuration dialog will open.
- 2** In the Enter Auto Update Directory field, specify the FTP directory to which DHCP tag 137 points (the URL path as it appears in the DHCP tag).
This entry must include the full path on the FTP server specified.
- 3** In the Software Version field, specify the name of the folder containing the Neoware Windows CE software. "3000" is the default name for this folder.

-
- 4 In the Properties Registry File field specify both the name of the *properties.rgy* file located in the FTP directory (by default, "properties.rgy"), and the version in the accompanying Version field.
If a Properties Registry File is specified, ezRemote Manager will verify that this file exists in the Auto Update FTP directory, and that the associated version field is filled in when the OK button is clicked. The specified version is used to determine whether the thin client's properties should be updated. By default, the current date is filled in.
 - 5 In the Connections Registry File dialog, specify both the name of the *connections.rgy* file located in the FTP directory (by default, "connections.rgy"), and the version in the accompanying Version field.
If a Connections Registry File is specified, ezRemote Manager will verify that this file exists in the Auto Update FTP directory and that the associated version field is filled in when the OK button is clicked. The specified version is used to determine whether the thin client's connections should be updated. By default, the current date is filled in.
 - 6 Click the OK button to create the *config.txt* file.

Appendix C: ezUpdate for NeoLinux Appliances

This appendix explains how to set up ezUpdate for automatic updates to your NeoLinux based Neoware appliances' software, properties, and connections.

ezUpdate and NeoLinux

Both ezRemote Manager (2.3 or later) and Neoware NeoLinux Software (2.2 or later) contain enhancements that allow for the automatic server update of appliance software, appliance configuration properties, and appliance server connections. These enhancements are collectively called “ezUpdate.”

The use of this feature, enables all Neoware NeoLinux-based appliances to automatically download configurations and/or software from a server (the “ezUpdate server”) when they are initially installed and powered. In addition, each time the appliance boots, it checks with the server to see if there is a newer configuration or software package download.

ezUpdate for NeoLinux can be used with the following models:

- Capio 500
- Eon 2000 series
- Eon 4000 series

Requirements

The following is a list of requirements to enable ezUpdate.

-
- ezUpdate must have one Neoware NeoLinux-based appliance configured as a template, with all the properties and connections deemed necessary for it to have.
 - You must configure your DHCP server to notify the appliances that configuration information and/or software is available for download.
 - It is mandatory to have both an FTP or NFS server. They can be resident on the same machine as your NFS and DHCP servers.
 - You must download the NeoLinux ezUpdate Server Package from the Neoware website. The NeoLinux ezUpdate Server Package can be found at:
`http://www.neoware.com/downloads/`
 - Using ezRemote Manager, create property and/or connection template files with which your appliances will update themselves.
 - To use ezUpdate to update an appliance's software, you must download and install a Neoware NeoLinux Software update package.

DHCP tag 137

DHCP tag 137 must be set on your DHCP server to specify the FTP or NFS location (URL) of configuration and/or software update files. Your Neoware NeoLinux appliances will use this tag when they are powered on. The URL address will depend on the type and setup of the ezUpdate server you are using.

For password protected FTP, the URL should be in the following format:

```
ftp://username:password@host/path_to_update_file_directory
```

For anonymous FTP, the URL should be in the following format:

```
ftp://host/path_to_update_file_directory
```

If you are using anonymous FTP, and your FTP server resides on the same machine as your DHCP server, the URL should be in the following format:

```
ftp://@DHCPSEVER/path_to_update_file_directory
```

For an NFS server, the URL should be in the following format:

```
nfs://host/path_to_update_file_directory
```

On an NFS server, the target directory should be shared for all users, read only access.

NeoLinux ezUpdate server package

The NeoLinux ezUpdate server package contains a file tree template, used to automatically update NeoLinux appliances. This tree contains scripts and a specific directory structure required for the automatic update of NeoLinux appliances. The file tree must be placed within the directory on the FTP or NFS server to which the DHCP tag 137 points.

FTP or NFS server

After installing the NeoLinux ezUpdate Server Package on the FTP or NFS server, create or copy these ezUpdate files within the directory. These files include:

- *properties.rgy* - automatically updates appliance properties.
- *connections.rgy* - automatically updates appliance connections.
- Neoware NeoLinux Software - These files automatically update an appliance's software, and need to be stored in a directory contained in the software path.

NeoLinux Software ezUpdate

- 1 Download the appropriate NeoLinux Software Update Package from <http://www.neoware.com/downloads/>.
- 2 Install the ezRemote Manager software on a server running Windows NT 4.0 Server or Windows 2000 Server (Terminal Server / Terminal Services versions will work, too).
- 3 Copy all of the software update package files from the installation directory to the appropriate (see the table below) directory of the software path in the NeoLinux ezUpdate file tree on your FTP

or NFS server.

NeoLinux Software Update Package (Flash Disk Size)	ezUpdate Directory (Path)
8 MB	nl/software/NL-1
16 MB	nl/software/NL-2
32, 48 MB	nl/software/NL-3

You are now set to have your appliances automatically update their embedded NeoLinux software.

NeoLinux Profile ezUpdate

Updating connections and properties

To automatically update appliances' connection and/or properties you need to begin by creating a profile. This is accomplished by adding a directory to the NeoLinux ezUpdate Server file tree (nl/profile/<directory>). This directory will contain all the necessary files for automatically updating your appliance connections and properties. These files include: *install.nl*, *version*, *connections.rgy*, and *properties.rgy*.

install.nl

To include *install.nl* in your profile directory, simply copy the *install_profile_image.template* file (found in the NeoLinux ezUpdate Server file tree in the templates directory) into your profile directory and rename it *install.nl*.

Version file

The ezUpdate process uses a version file to determine if an appliance needs to be updated. The version file is a plain-text file that can include any value. When an administrator makes a change to the profile configuration files, changing the value contained within the version file will notify NeoLinux appliances that an update is required at bootup. The version file must be named *version.profile*.

Configuration files

To create the necessary configuration files, first set up an appliance with the connections and/or properties that needed to copy to your other appliances. This can be done at the appliance itself or by shadowing it using ezRemote Manager (see “ezAnywhere Shadowing” on page 57). Once you have set up a template appliance, you need to create the ezUpdate *connections.rgy* and *properties.rgy* files.

properties.rgy

This plain-text file contains a full description of the Neoware appliance properties that you would like to be automatically set. This includes settings such as display, keyboard, screen saver, overall security, etc.

- 1 Using ezRemote Manager, locate the appliance with the properties to use as a template.
- 2 Select the template source appliance in the list view, and click the Properties button in the ezRemote Manager toolbar, or select Properties from the Actions menu bar item.
- 3 When the ezRemote Manager Property Manager interface appears, select the template appliance from the list of appliances on the left-hand side.
- 4 Click the Get button.
When ezRemote Manager finishes uploading the appliance’s properties, the Save As button will become active.
- 5 Click the Save As button.
The Save As dialog will open.
- 6 Browse to either the FTP or NFS directory or a temporary directory and click the Save button.

The *properties.rgy* file, created by this process, must reside within a profile directory of the ezUpdate Server Package file tree, which is in the FTP or NFS directory that the DHCP tag 137 specifies.

connections.rgy

This plain-text file contains a full description of the Neoware appliance server connections defined to be set automatically.

-
- 1 Using ezRemote Manager locate the appliance with the connections to use as a template.
 - 2 Select the template source appliance in the list view, and click the Connections button in the ezRemote Manager toolbar, or select Connections from the Actions menu bar item.
 - 3 When the ezRemote Manager Connection Manager appears, select the template appliance from the list of appliances on the left-hand side.
 - 4 Click the Get button.
When ezRemote Manager finishes uploading the appliance's connections, the Save As button will become active.
 - 5 Click the Save As button.
The Save As dialog will open.
 - 6 Browse to either the FTP or NFS profile directory or a temporary directory and click the Save button.

The *connections.rgy* file that is created by this process must reside within a profile directory of the ezUpdate Server Package file tree, which is in the FTP or NFS directory that the DHCP tag 137 specifies.

Setting the appliances for ezUpdate

Automatically applying an ezUpdate profile to your network appliances requires the appliances to be set to look for the appropriate profile.

- 1 Using ezRemote Manager, locate all of the appliances to be setup for the profile ezUpdate.
- 2 Select these appliances in the list view, and click the Snap-Ins button in the ezRemote Manager toolbar, or select Snap-Ins from the Actions menu bar item.
- 3 When the Snap-In Manager appears, click the Command radio button to activate the Command field.
- 4 In the Command field, type

```
sh -s "<profile name>"
```

The quotation marks are required whenever the profile name contains a space. Replace `<profile name>` with the name you want to give to the specific NeoLinux ezUpdate Profile.

Note: The `<profile name>` of this NeoLinux ezUpdate profile must have the same name as the profile directory added to the NeoLinux ezUpdate server file tree to contain the automatic update configuration files (see “Updating connections and properties” on page 88).

- 5 Click the Browse button next to the Optional Input field, locate the file named *install_profile.sh* and click Open.

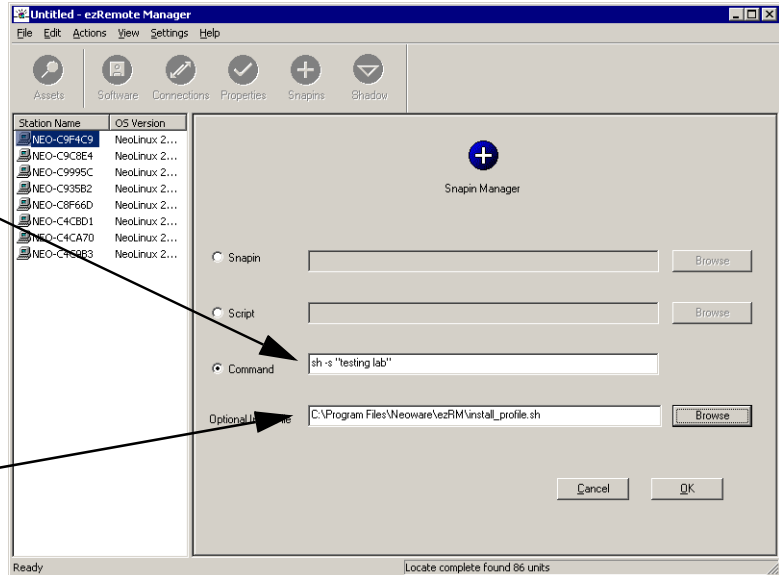
Note: The *install_profile.sh* shell script file is located in the directory to which ezRemote Manager was installed. By default, this file is located in *C:/Program Files/Neoware/ezRM/install_profile.sh*.

- 6 Click the OK button to set the appliances to request the automatic profile ezUpdate.
- 7 When the Confirm Session Start dialog appears, click Properties to set the session parameters (see “Setting Session Parameters” on page 61), OK to begin the session immediately, or Cancel.

Note: If you choose to make the session delayed in the Set Session Parameters dialog, clicking the OK button will add the delayed session to the Task View instead of beginning the session immediately.

Type the command to set the profile name.

Specify the full path of the install_profile.sh file.



You are now set to have your appliances automatically update their connections and/or properties.

ezUpdate Advanced Topics

Snap-ins

ezUpdate also can be used to install snap-ins. The snap-in can be set up as part of an automatic software update, or as part of an automatic profile update. It can also be installed separately by either method.

Snap-ins generally come with an *install.nl* script that is used to direct the thin client appliance's installation of the snap-in files. However, the script that governs the ezUpdate process does not contain a way to identify and use the snap-in *install.nl*. To add snap-ins using ezUpdate, you must cus-

tomize one of the ezUpdate scripts (a server file with *.nl* extension). Adding the line

```
netconfig -p <sub_dir>
```

directs ezUpdate to jump into the <sub_dir> directory and continue installing files that are located there.

For example, suppose you have defined a profile named “web_kiosk” and you want to install the “French Netscape” snap-in as part of this profile. After making sure the files are on the server, you must edit the profile's *install.nl* file to direct it to also install the “French Netscape.” If this snap-in is stored in a sub-directory named “fr-ns” then you must add the following line to the profile's *install.nl*:

```
netconfig -p fr-ns
```


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